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To Be or Not to Be: A Critical Realist Exploration of Factors Motivating Doctors in Their Commitment to Improve Their Teaching Practice in a Clinical Setting in Oman

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بسم الله الرحمن الرحيم

In the name of Allah the most gracious the most merciful

Declaration

I hereby declare that the work presented in this thesis has not been submitted for any other degree or professional qualification and that it is the result of my own independent work and to the best of my knowledge contains no material published or written by any other person, except were stated in the text.

Abstract

Adopting a critical realist framework, this study explored how medical doctors come to understand and espouse, or resist, their roles as teachers in clinical settings and how they seek to become more proficient in that role. This work builds on earlier research on doctors' professional development as teachers and extends it into the particular cultural context of medical practice and education in the Sultanate of Oman. A qualitative approach was adopted. Data were collected in 2016 through semi-structured in-depth interviews with 27 senior clinicians and by the examination of relevant institutional policy documents. Interviews were conducted in two hospital settings: the Sultan Qaboos University Hospital (SQUH) and the Royal Hospital (RH), which is a Ministry of Health Hospital (MoHH).

The findings suggest that Omani medical doctors' orientation to their roles as teachers and their understanding of their responsibility to prepare the next generation of medical professionals have been transformed by three main events over the last 3 decades. First was the establishment of Sultan Qaboos University College of Medicine and Health Sciences (CoMHS) in 1986. Next came the governmental authorities' decision to train medical doctors in the overseas hospitals that have structured postgraduate clinical training since the 1990s. Thus, while the senior doctors contributing to this study had received some or all of their medical training outside of Oman, they were helping to build a medical education system which sought to raise the next generations of doctors at home. Finally came the establishment of the Oman Medical Speciality Board (OMSB) in 2006 as the official body responsible for the graduate medical education in Oman. However, due to a lack of clear policy regarding their teaching roles, the Ministry of Health (MoH)

doctors felt that they, as compared to their colleagues in the university teaching hospital (SQUH), were being expected to make an extra effort to teach in their clinical setting. All respondents, whether recruited from RH or SQUH, recognised the influence their own experience of being taught had on their personal development as clinical teachers on their return to Oman. Respondents' exposures to different teaching and learning cultures and styles contributed to their motivation to teach and learn about teaching. In particular, many respondents believed that the religious culture of the country contributed to a pervasive attitude of altruism in the orientation of doctors to both their patients and their students.

However, demotivators such as the health system's hierarchical structure, unclear educational roles, lack of resources—time, human and suitable facilities—for teaching in their hospitals are significant challenges in accomplishing their multiple roles and developing themselves for their educational roles. What emerged as a fundamental challenge for the RH respondents was the lack of any clear policy regarding the doctor's role as a teacher. The respondents believed that having a clear policy would empower the doctors and give them the support they need for their multiple roles in the clinical setting. Such policy would also guide the administrators and decision-makers in the support and resourcing that they provide to doctors, which they believed were so essential to ensure the next generation of doctors developed according to Oman's mission and vision.

This study's findings show clearly the need to establish and standardise national medical education policy and procedures for the MoH doctors, thus giving them a clarity of roles and responsibilities they believe to exist for their SQUH colleagues. Having such national standards and policy is an essential part of a health

organisation, and hence its implication for the doctors will be to provide them with the road map for the day-to-day management of their multiple complex roles. It is also clear that the Ministry of Health and the educational institutions (governmental and private at both the undergraduate and the postgraduate levels) need to collaborate and cooperate to establish an integrated medical education system for clinical settings, not just for the learners but also for the doctors who teach them, and thus to establish a stable teaching and learning environment. The presence of such a national policy for medical education will have a positive impact upon the quality of medical education, patient care, and upon junior doctors' willingness to pursue careers as medical educators in clinical settings.

Lay Summary

This study looks at the factors that serve to encourage or discourage medical doctors in the Sultanate of Oman to involve themselves in the teaching and mentoring of their junior colleagues.

Twenty-seven senior doctors working in a university teaching hospital and a nearby Ministry of Health-administered hospital were interviewed. The Ministry of Health doctors felt they had to make an extra effort when teaching in their clinical setting compared to their colleagues in the university teaching hospital. This additional work, the doctors believe, is due to the lack of clear teaching role policy. However, their religious culture and the exposure during their own medical education to different teaching and learning cultures and styles provides a foundation for their motivation to teach.

They experienced demotivators, however, in the form of a stressful clinical working environment due to their multiple roles and unclear medical education standards and policies.

The working experience of future doctors in Oman would be enhanced by the development of such standards and policies to give them a clear road map for the day to day management of their multiple roles in the clinical setting. This would require all the different stakeholders to join forces to produce a national vision for medical education.

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Chapter 1   Introduction

This study seeks a deeper understanding of why senior medical doctors embrace certain opportunities and encounter certain challenges in their clinical teaching roles and the implications for clinical teacher professional development in the Sultanate of Oman. This introductory chapter, will start with my assumptions before the study interviews began about why senior medical doctors persist in teaching their junior colleagues and medical students in clinical settings. Although my expectations were not entirely disconfirmed, neither were they a complete picture. In addition, I wanted to know if the Sultan Qaboos University Hospital (SQUH) senior doctors were motivated differently from the senior doctors of the Ministry of Health (MoH). I will then explain what surprised me once I conducted the interviews. I will then outline my reflection as a researcher and my experiences as a leader and faculty developer. I will then present the research questions underpinning this study. Finally, I will introduce Oman, its medical health services and medical education.

Education in the workplace is not a new concept. Much research has been conducted to investigate teaching in a workplace setting in recent decades in a variety of organizational settings, such as in the fields of education, medicine, nursing, allied health and many areas of vocational training (Buchel & Edwards, 2005; Kendrick et al., 1993; E. Martin, 1998; McLaughlin, 1992; Stalmeijer, 2015; Velde & Cooper, 2000; White et al., 2000). However, in some of these settings, such as medicine, teaching and learning have recently become more academic in nature. For example, a structured curriculum based on a set of competencies (Dacre & Fox, 2000; Dornan et al., 2019; Wagner et al., 2016)(Dacre & Fox, 2000; Dornan et al., 2019; Wagner et al., 2016) had to be delivered as directed by medical schools and

postgraduate medical training institutions. Additionally, educational institutions support clinical doctors by providing them with guidelines, frameworks and training opportunities to learn how to teach in clinical settings (Blitz et al., 2016; Burgess et al., 2020; Daouk-Öyry et al., 2017; Giesler et al., 2017; David M Irby & Sullivan, 2018; Kilminster & Jolly, 2000; O'Sullivan & Irby, 2011; Sorinola et al., 2017; Yvonne Steinert et al., 2010; Yvonne Steinert & Mann, 2006). However, clinical teachers continue to face challenges when teaching in clinical settings (Beigzadeh et al., 2020; Block et al., 2015; Sturman et al., 2011).

On many occasions throughout my career with the Ministry of Health (MoH) as a teacher, administrator and faculty developer, I observed a few doctors from the MoH who were involved in structured teaching and saw that many who taught eventually opted out of teaching. Structured teaching in the context of the current study of medical education in Oman involves doctors teaching postgraduate and/or undergraduate curricula in clinical settings and following clear learning objectives from the medical school and/or the Oman Medical Speciality Board (OMSB). Therefore, the question of why some doctors in MoH hospitals do not teach was raised but was left unanswered. Consequently, I decided to investigate a related question: Why do the doctors who teach do so?

Hence, I conducted this study to understand what motivates doctors in Oman to teach in clinical settings and how we can inform and guide faculty development initiatives. To my knowledge, what drives medical doctors in Oman to teach in clinical settings has unfortunately not been studied.

This study addresses the lack of information described above and the need for research regarding medical doctors' roles as teachers in teaching hospitals in the

Sultanate of Oman. Employees of educational institutions and I have observed that doctors often opt out of teaching—especially teaching medical students. Unfortunately, no data are available regarding the percentage of doctors who are recruited to teach and subsequently opt-out. Researchers have, however, observed a high rate of turnover in speciality teachers, which has been partially attributed to these specialist doctors being non-Omani. The other factor is that some doctors move on because of socioeconomic factors.

The findings of this study will provide medical schools, postgraduate institutions, health care providers and doctors themselves with valuable insights that can be used both to review current practices and to further improve the quality of teaching and learning achieved, especially within MoH hospitals.

1.1 The Anticipated Story

The Junior Doctors

The junior doctors spoke about how they enjoyed the training they received at Sultan Qaboos University Hospital (SQUH) more than the training they received at MoH hospitals. Their rationale for such a distinction was that they received special attention and care and were treated as individuals in SQUH rotations. They developed more confidence in these rotations because the training was better directed towards their needs. Moreover, they felt that learning outcomes were less confusing and more easily achieved.

However, these doctors' experiences at MoH hospitals varied based on which hospital and department they were in at the time. In some of the rotations, some junior doctors felt they were in the way because they were in a busy clinical setting. Their experiences also varied based on the clinical specialities in which they found

themselves because some specialities had very few doctors who served as educators. This situation was compounded by the resignation of many non-Omani senior doctors after the 2008 financial crisis and the fall in value of many international currencies against the Omani currency. In these circumstances, the junior doctors felt that they received little guidance and training and that their role was only to provide clinical services. They expressed feeling overwhelmed with work and having hardly any time to reflect or learn. Junior and senior medical students and junior doctors believed that those doctors who trained in North America were better clinicians and teachers and that their strengths were passed on to them by their senior colleagues. It did not take the junior medical students long to determine that the North-American - trained educators were more motivated to teach them. Consequently, the students felt more motivated to learn from the senior doctors trained in North America than from those trained at home.

Local Teachers (Senior Doctors)

Some of the senior clinical teachers from the MoH, especially those teaching in the local residency programme, shared their concerns regarding some of the medical school graduates' behaviours. The educators stated that studying for and passing international entry exams for overseas residency programmes were the graduates' focus during their clinical duties. The senior doctors believed that these junior doctors did not show much interest in participating in day-to-day clinical practices or attempting to consolidate their clinical skills. The educators believed that such a mentality in junior doctors disturbs the smooth running of clinical practice and provides little opportunity for senior doctors to teach junior doctors as planned by the

educational institutions. Junior doctors do not attend with senior doctors during clinical encounters to learn and be taught by them.

The explanation provided by the senior doctors to me about the junior doctors' behaviour and desire to train outside of the country resulted from the junior doctors' belief that those who had trained abroad, especially in Canada and the United States, received a better education than those trained locally or in countries outside of North America. These senior doctors stated that the new graduates believed that MoH and OMSB authorities clearly discriminated between those who were locally trained and qualified and those who were trained and qualified abroad. The new graduates also believed that the senior doctors trained in North America had better opportunities to excel in their medical and educational careers. The senior authorities (officials of the OMSB and the Director-General of the MoH hospitals) considered the views of North American trained senior doctors more than the views of the locally trained senior doctors, especially with regard to training future doctors. The authorities reported that the assumed discrimination led some senior doctors who were locally trained to opt-out of teaching. They felt that they were unappreciated as educators and that the authorities undervalued their services in training future doctors. These senior doctors' observations and beliefs caused me to try to determine what drives the other senior doctors to teach. Additionally, I wanted to know why some senior doctors are persistent in their teaching roles and continue to learn about teaching regardless of their training backgrounds. Moreover, I wanted to discover whether SQUH senior doctors were motivated by different goals than MoH hospital doctors.

The Surprises

My original intention was to begin data collection by interviewing senior clinical doctors in the MoH hospitals who were involved in teaching the medical students and/or junior doctors in training in a postgraduate residency programme conducted by the OMSB. Because I had never conducted interviews for a study before, I assumed that I would be at ease during this first stage of data collection and that being on familiar ground with my interviewees would cause the interviews to go smoothly. I also assumed that being aware of the challenges and opportunities that MoH clinical teachers experience would give me more insight to use in answering the main research question. Another assumption I made was that SQUH clinical doctors would not have many challenges because they worked in a hospital administrated by an educational institution (SQU). Having first obtained ethical approval from SQU, I began data collection with SQUH clinical teachers. I realized this new arrangement was an advantage after I finished interviewed the clinical teachers from each institution. The advantage lay in asking MoHH clinical teachers further questions about assumptions they had made about their unique situations, especially when they compared themselves with SQUH doctors and aspects of their clinical settings (e.g., workload). As a result, I was forced to abandon the assumption I had made prior to conducting the interviews about the situation of the clinical teachers in both institutions and their working and teaching environments. This change in interviewing the SQUH doctors first helped me recognise some hidden assumptions I had that were based on experiences and conversations I had before conducting this study. Consequently, I adopted a more open-minded position at the onset of the data collection process.

In general, the factors that drove senior doctors from the two different hospital settings (the university teaching hospital and the health services hospital) to teach and learn about teaching were not significantly different. The views of respondents from both hospitals were determined by the examples of their senior colleagues during their own training. The respondents felt that teaching is an integral component of being a doctor. Furthermore, the clinical teachers who had positive perceptions of their teaching attributed to the fact that they had felt valued as teachers during their early teaching experiences. They felt valued by not only their learners and their educational institutions but also by the director of the hospital and the head of their speciality department. Feeling that they were appreciated prompted them to identify themselves as doctors and teachers. Therefore, by examining this phenomenon through a critical and realistic lens, I will be able to identify the mechanisms that generate the emergence of new doctors who identify as teachers and learners about teaching in the clinical setting in the field of medical education.

Reflection as a Researcher

Before starting my PhD journey, my professional responsibilities as an educational developer included the creation of an educational development framework adaptable to any clinical situation. The framework, if created, would guide an educational developer to set up educational programmes for clinical settings that would improve doctors' teaching skills and encourage those opting out of teaching to return to their educational roles. The issue here was the way in which doctors responded to their understood responsibilities to contribute to the learning of their junior colleagues who were just entering the profession. I anticipated that all that was lacking was support for the technical business of teaching.

Furthermore, I assumed the inadequate frequency and variety of training programmes provided by the educational institutions—The Sultan Qaboos University (SQU) College of Medicine and Health Sciences (CoMHS) and the OMSB—were a result of these institutions' lacking the quality and quantity of educational development resources and activities required to meet the needs and demands of clinical educators. I also assumed that there were so few training courses because of a lack of dedicated educational developers in both educational institutions. In turn, this dearth of local medical education developers was attributable to such factors as the 2008 financial crisis and the 2014 fall in oil prices, both of which hit the world and the Sultanate. These factors made it challenging to recruit enough educational developers to meet the universities' needs. In short, my initial expectations were that the quality of medical education was limited by the training and support provided to doctors to enable them to adequately fulfil their teaching duties and that the allocation of additional financial resources could address this limitation. Furthermore, educational developers made a general assumption that doctors who attended their activities would educate their peers about clinical teaching practices and inevitably act as educational role models once back in their clinical settings.

Being the director of training and scholarship in the MoH for more than nine years prior to conducting this study provided me the privilege of hearing many stories from junior doctors working in MoH hospitals. These doctors were seeking training abroad in different specialities, and they needed approval from the MoH for their scholarship. These junior doctors shared their learning experiences in different hospitals as both medical students and junior doctors. Some of the doctors were in a

postgraduate residency training programme,[1] and some were not in any training programme. Moreover, some of these junior doctors were working in a teaching hospital in which senior doctors were teaching medical students and OMSB trainees; others were working in a nonteaching hospital or a primary health clinic, both of which were usually outside of Muscat governance.

1.2 Purpose Statement

The purpose of this qualitative study is to develop a deeper understanding of why medical consultants (senior doctors) who have at least five years of clinical experience and at least two years of teaching experience (after their speciality qualification) embrace certain opportunities and encounter certain challenges in their clinical teaching (educational) roles. The implications of this study may be helpful in improving the development of medical educators in Oman.

This study was conducted in 2016 in two government teaching hospitals with approximately 700 beds each. These medical educational institutions perform five main functions: teaching medical students, undergraduates and postgraduates; research; and providing highly specialised medical care (tertiary medical care) with state-of-the-art medical facilities.

As a leader in the development of health professionals, a contributor to the development of doctors in their educational roles and an interested reader of medical education literature, I became intrigued by the doctors' perceptions of their roles as

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[1]OMSB Residency Training Programs is a training requirement for medical graduates to practice medicine in different medical specialities. The program takes four to five years of training depending on the speciality.

educators, the opportunities provided to them to facilitate these roles, the reasons for the challenges that they encountered in clinical settings and how they dealt with them. In addition, I became curious about my discovery that doctors are frequently opting out of teaching or even not teaching at all during the early stages of their medical careers. Some researchers (Aucott et al., 1999; Chung et al., 2010; J. M. Clark et al., 2004; Linzer et al., 2000; Papp et al., 2001; Yvonne Steinert & Macdonald, 2015; Vassie et al., 2020)(as further discussed in Chapter 2) explained this as being a result of doctors' perceptions of teaching and the fact that they find their educational roles challenging—because of their busy clinical roles, past teaching experiences and/or their personal lives.

By focusing on achieving a deeper understanding of the perceptions and experiences of doctors who teach, this thesis will explore the role of faculty development intervention, such as teaching how to teach courses and how it might influence and support medical doctors in their educational positions.

Main Research Question

What drives doctors in their commitment to teaching and to improving their teaching practice in clinical settings?

Subsidiary Questions

- What are the clinical educational roles of doctors in Oman?
- Which opportunities and challenges do doctors encounter related to their clinical educational roles? How do they respond to these opportunities and challenges?

- How might organizational influences such as faculty development affect doctors' abilities to embrace opportunities and address challenges in their clinical educational roles?

1.3 The Sultanate of Oman—Geography, Climate and Demography

The Sultanate of Oman occupies the south-eastern edge of the Arabian Peninsula in southwest Asia (see Figure 1). It has a 1,700-kilometre coastline from the Strait of Hurmuz in the north to the Republic of Yemen's border in the south (Omanuma, 2021). The land includes different terrains: coastal plains, which make up 3% of the total landmass; wadis, which are dry riverbeds; and desert. Together they make up about 82% of the total landmass. Mountains make up the remaining 15%, like the Jabal Al Akhdar, which reaches a height of 3,000 metres (Omanuma, 2021).

Figure 1 Map of Oman

The Sultanate of Oman occupies a total land area of approximately 309,500

square kilometres (Omanuma, 2021). It has been divided administratively into eleven

governorates (known as *muhafazah*). The governorates are Muscat (the capital and

the centre of government, commerce and industry), Al Batinah North, Al Batinah

South, Ad Dakhiliya, Dhofar, Musandam, Al Buraymi, Al Wusta, Ash Sharqiyah

North, Ash Sharqiyah South and Ad Dhahirah. These governorates are further subdivided into provinces (called *wilayat*).

The climate in the Sultanate varies depending on the area, but it is generally hot with low annual rainfall and extremely high temperatures (30–45 °C) in the summer months (April–September). By contrast, winter months (October–March) are cool and pleasant (25–35 °C). The high mountains and southern regions enjoy moderate weather (up to 30 °C) throughout the year. Rainfall is scarce and irregular but occasionally heavy, especially during the cyclone season (April–November).

The Sultanate had a population of just under 4.5 million in 2020, with about 43.6% comprising non-Omani nationals (National Centre for Statistics and Information, 2021). Youth (aged 15 and under) make up 41.2%, and only 4.9% are 60 years and older. The bulk of the population (57%) is concentrated in the Muscat Governorate, the Batinah North and South Governorates' coastal plains and adjacent towns and villages (see Chart 1). However, in recent years there has been a noticeable shift in population to other governorates (National Centre for Statistics and Information, 2021).

The high proportion of non-Omani nationals composes the bulk of the labour force and helps build the country's infrastructure; more than 41% of Omanis are under the age of 15. This high number of non-Omanis is also reflected in the population of health care workers and has important implications for health care, teaching in hospitals and employment experiences for all professional groups. The possible impact of such a disproportionate number of non-Omanis has led to many expatriates leaving the professions, and an 'Omanisation' policy introduced in the

1980s. This policy intends to create jobs for the Omanis by empowering them through human resources development programmes.

Chart 1 Percentage of Population Registered By Governorate—2020 (National Centre for Statistics and Information, 2021)
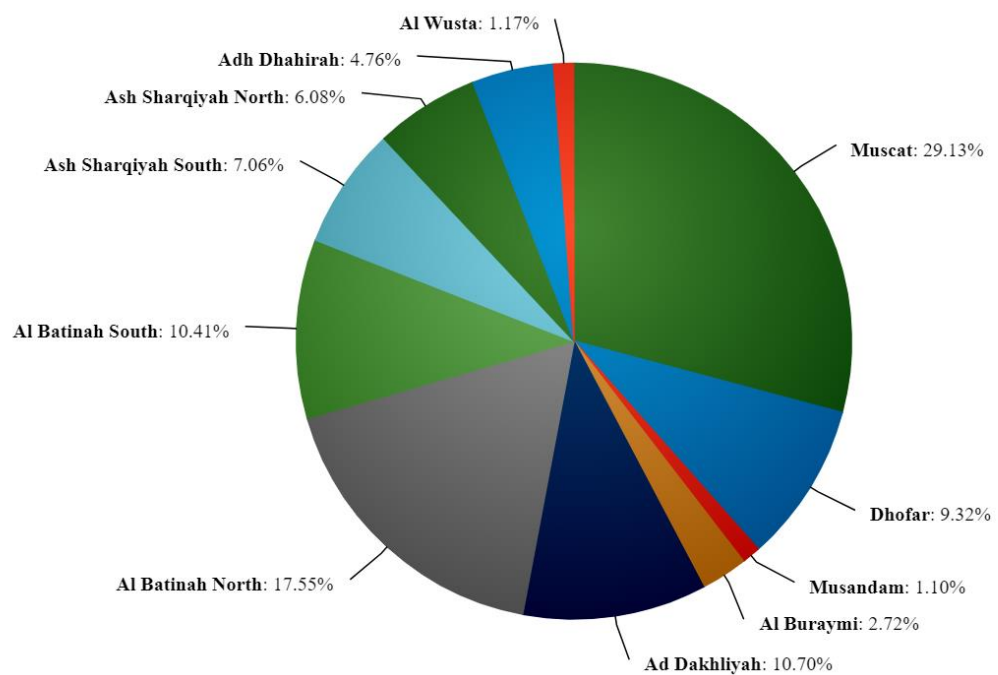
Health Services Before the 21st Century

Prior to the 21st century, the Dutch, English, French and Americans had considerable interest in the wealth of the East, and they established trade links with Oman because of its strategic location, which caused Oman to flourish in the 18th century (Agius, 2009). However, in the middle of the 19th century, Oman experienced a rapid decline in wealth, caused by internal conflicts and a change in trade routes from Muscat–Mumbai to Aden–Mumbai following the opening of the

Suez Canal; Oman sank into poverty and debt by the end of the century (Agius, 2009, p. 71). By then, the health and health care of the Omani people were terrible—contagious diseases were common because of factors like Oman's geographical location and its contact with the Far East and India. The primary commonly available medical treatment at the time was *al-tibb al-sha'bi* (folk medicine). For physical treatment, the Omanis used desert shrubs, trees and cauterisation as prescribed by experts in folk medicine, and this tradition was passed down from one generation to another (Al-Tameemi, 1978, p. 80).

Mental health treatment, however, was based on religious beliefs and prayers performed by a religious leader called a *mullah*. However, these religious leaders did not distinguish between physical and mental illnesses (Al-Tameemi, 1978, p. 81). In the late 18th century, the Arabian Mission started to operate in Oman with medical service. The intent behind the Arabian Mission was religious, and later on, it became a religious and medical mission (The Arabian Mission, 1909, p. 14).

In the early 1900s, the British government and Christian missionaries—mainly Americans—played significant roles in the development of medical services in Oman. In 1891 a discussion about establishing a hospital and school in Oman administered by the Church Missionary Society of England took place with His Majesty the Sultan Said. However, it was not until 1893 that the Arabian Mission of the Reformed Church of America, led by Reverend Peter Zwemer, purchased a house for this purpose. The Sultan Said offered the church a piece of land in front of the house for the school's garden (Mason & Barny, 1926, p. 115). In 1908, the school building was completed and was named the Peter Zwemer Memorial. Part of this

building was used as a hospital that served Muscat, and this marked the beginning of modern medical services in Oman (Mason & Barny, 1926, pp. 113–115).

In 1909, in Mutrah, a house was rented to be used as the country's first hospital facility. After a year, a 15-bed hospital—the American Mission Hospital— was established in Muscat by Dr Sharon Thoms with the help of Elizabeth DePree Cantine and the British Consulate. Advances in the medical services in Oman has been attributed to Dr Sharon Thoms, who played a significant role in The Mission's medical services (Al-Tameemi, 1978, p. 106). During the same year (1910), Dr Thoms secured a donation from the United States for a hospital in Mutrah (Mason & Barny, 1926, p. 156). However, negotiations surrounding the building of the hospital came to a halt after the sudden death of Dr Thoms in 1913 (Calverley, 1913, p. 10; Mason & Barny, 1926, pp. 157–158). In 1928, Dr Paul Harrison became the head of surgery and director of the American Mission Hospital. He later supervised the construction of the Knox Memorial Hospital (named for the donor who funded its foundation), which was changed later to the Al Rahmah (which means 'mercy' in English) Hospital in Mutrah with the money obtained by Dr Sharon Thoms 23 years earlier; this hospital was completed in 1933 (Leonard, 2013, p. 294; Scudder, 1998, p. 298). According to Leonard (2013, p. 294), it was always the intention of the American Mission to train Omanis in the medical profession. However, only during Dr Harrison's time did the hospital and school start employing Omanis as medical professionals. No evidence was found to explain the reason for the delay in training Omanis. It was during this period (in 1959) that the first school for health professionals (focused mainly on nursing) was founded in Oman, where Dr Harrison and his team trained and employed Omanis as doctors' assistants, laboratory

technicians and nurses (Mamtani & Lowenfels, 2017). However, the training became more formal at the hospital's Al Rahmah Nursing School in 1970.

In 1939, Dr Wells Thoms—the son of Dr Sharon Thoms—replaced Dr Harrison as the head of surgery and director of the two hospitals until his retirement in 1970. The American Hospitals of Mutrah and Muscat were further developed under Dr Wells Thoms and became the largest private employer of medical personnel in Oman by the 1960s.

Dr Don Bosch arrived in Oman in 1968 and took over from Dr Thoms following his retirement. In the early 1970s, the Reformed Church of America gave its hospitals in Oman to the Omani government under the Sultan Qaboos bin Said. The year 1973 concluded nearly 70 years of health services from the Reformed Church of America to the people of Oman (Bosch, 2000).

Health Services Post-1970 and the Current Situation

The development and expansion of health services in Oman have coincided with Sultan Qaboos bin Said Al Said's ascent to the throne in 1970. That year, the country had two hospitals, and now those hospitals are part of an extensive public health care services network (Ministry of Health, 2007). There are now 49 government hospitals in Muscat and the other governorates, with over 5,000 beds and numerous health centres. Some of the health centres are with beds and some without beds (Ministry of Health, 2016).

Oman's total health expenditure per capita is $678.23, and the total expenditure on health as a percentage of the GDP was 4.13% in 2018 (World Bank, 2021). The Omani health care vision has been to improve health care by developing state-of-the-art medical facilities and advancing medical education. For example,

when SQU was founded in 1986, the Royal Hospital (RH) was created to provide world-class health care, research and innovation to support the university.

There are currently two medical colleges in Oman—one public and one private. In the 1990s, the MoH and the CoMHS reached an agreement to allow medical students to receive clinical education within its hospitals. Currently, five hospitals are teaching hospitals within the Muscat region.

Current Challenges to the Health Care System in Oman

An improvement in health and a decline in overall mortality have been observed in Oman since the 1970s (Ministry of Health, 2016). There has been an intensive focus on quality assurance and evaluating the existing health programmes in Oman. The current challenges include a lack of adequate Omani health care providers, especially physicians. Most of the professional expertise in medicine has been imported, and the long-term investment in non-Omani doctors may be limited because many expatriate physicians who have been hired will not stay in Oman for the long term. This high turnover in medical doctors affects continuity of care and the quality of teaching for undergraduate medical students and postgraduate residents.

Medical Education in Oman

As previously mentioned, the Sultanate of Oman has two undergraduate medical colleges that are the primary source of practising national medical doctors. The first is the College of Medicine at SQU, established as one of five colleges— Education and Islamic Studies, Science, Engineering, Agriculture and Medicine—at SQU. SQU was the only government-owned university in the country at the time of

this study. The college of medicine was founded in 1986 with the inauguration of SQU. In 2001, the college of medicine became the College of Medicine and Health Sciences (CoMHS). Over the years, the annual intake capacity of the CoMHS has increased from 45 to 130.

The second medical college is the Oman Medical College, which is privately owned and was established in 2001 with a maximum intake capacity of 60 per year. In 2018, the college became part of the National University of Sciences and Technology and changed its name to the College of Medicine and Health Sciences. A third institution, the OMSB, was established in 2006 by royal decree as an independent body to maintain and improve the quality of medical care through the development and maintenance of postgraduate medical speciality education. The OMSB is the body that sets the professional and educational standards for the training and certification of medical and health professionals (Oman Medical Speciality Board, 2010).

In this study, the focus is on two major hospitals in the Muscat Governates, the USQ Hospital, which is part of the CoMHS, and the RH, which is part of the MoH. Initially, the CoMHS offered a seven-year programme followed by a one-year internship. It was founded to offer two degrees: a Bachelor of Science in Health Sciences and an undergraduate Doctor of Medicine. These degrees correspond to the preclinical and clinical phases of the programme, respectively. The clinical phase is three years in duration with rotation (clerkships) in the clinical disciplines. In 2008, a new curriculum was implemented, which is noticeably different from the old curriculum. The new curriculum is one year shorter in duration, includes early clinical exposure, and is designed to be student-centred and outcome-based (College

of Medicine and Health Sciences, 2013). Moreover, a research component was added so that medical students could develop their research abilities and eventually become independent investigators who are able to analyse evidence, which may critically influence their practise. The programme comprises three phases, with Phase II integrating basic and clinical sciences and Phase III based on patients and bedside learning. The management of this new curriculum lies solely with the College Curriculum Committee. However, the hospital departments (SQUH and MoHH) are consulted and involved at all stages.

Clinical teaching takes place at SQUH, the MoH hospitals and other tertiary hospitals in both ambulatory and non-ambulatory settings. The SQUH is a purpose-built teaching hospital compared with other affiliated MoH hospitals. The undergraduate medical programme at CoMHS is taught by 75 academics who are employed by SQU (25 of whom are clinical) and supported by 329 affiliated clinical teachers. The first group of college students graduated in 1993 and included 44 doctors.

Educational Development of Doctors

In the Sultanate of Oman, the professional development of medical doctors for their teaching role is not a new idea. In November of 2000, the Second Gulf Cooperation Council (GCC) Conference of the Faculties of Medicine and Medical Education at King Faisal University in the Kingdom of Saudi Arabia agreed upon a programme for faculty development (GCC Conference Organizers, 2000). In December of 2002, this programme was implemented for the first time at the Third GCC Conference of the Faculties of Medicine and Medical Education in Muscat in the Sultanate of Oman. The CoMHS conducted this programme thereafter. They

called the programme the Certificate Course in Health Professions Education (CHPE), and it took the form of a three-day workshop. When establishing the programme, the intention was to make the faculty aware of the importance of educational pedagogy for teaching, learning and assessment in the classroom and in clinical settings. Initially, this programme was conducted twice a year, and in 2004 the college replaced one of the three-day CHPE workshops with a three-day workshop dedicated to student assessment. In 2006, further development was initiated by the establishment of a Medical Education Unit (MEU) in the CoMHS to improve its standards of medical education by developing expertise and educational programmes tailored to the needs of the college. The unit's name was changed to the Medical Education and Informatics Unit (MEIU) in 2014, and it was upgraded to department status in 2017. With the approval of the new curriculum in 2008, the College of Medicine identified the need to train faculty and affiliated faculty in new teaching and assessment methods. Over 280 faculty and affiliated faculty have attended these programmes over the last 11 years; however, the school has conducted no needs assessment.

The picture is similar for the OMSB because the need for faculty development was only recognised when residents provided verbal feedback to members of the Resident's Development Committee (RDS) that faculty and affiliated faculty were unable to guide them because the faculty themselves did not know many new methods, such as the use of portfolios in medical education. What is alarming is that the OMSB has only trained 50% of faculty and affiliated faculty because of the busy clinical schedules of the affiliated faculty and the other factors that this study will more closely examine, such as the distance between the hospitals and the places

in which workshops are conducted. What makes the Omani health care educational setting interesting is that the faculty, affiliated faculty and the health care team come from diverse backgrounds, have a large range of experiences and undergo noticeable turnover.

All the stakeholders—SQU, Oman Medical College, the OMSB and the MoH—invest in faculty development activities. SQU, the OMSB and the MoH often train affiliated faculty (mainly MoH staff) on similar topics. However, most of these educational activities are ad hoc, primarily in the form of one-off workshops. Furthermore, no comprehensive orientation activities are available for new faculty, and little attention has been paid to other health team members who influence the day-to-day teaching of medical students, health-profession students or residents. More importantly, no one has asked the faculty or affiliated faculty about their needs except through post-workshop questionnaires.

The RH, which is situated in the Muscat Governorate, is a referral hospital under the MoH. A 630-bed hospital, it was built in 1998 to be a state-of-the-art hospital. The RH organisational structure reflects and is influenced by government policy and health care practice. A director-general appointed by the Minister of Health provides day-to-day and long-term strategic leadership.

Chapter 2   Literature Review

In this study, I took on the perspective of critical realism to gain a deeper understanding of factors that might influence doctors to take on the role of structured clinical teaching in a busy clinical setting. I will discuss this in detail in Chapter 3. I will discuss the literature reviewed in this chapter from a critical realist perspective to explore factors motivating doctors in their commitment to teach and improve their teaching practice in a clinical setting in Oman. The chapter starts with a brief overview of how I selected the literature, including the chosen topics, how the search was conducted, and the criteria used to determine the literature. This is followed by identifying the complexity of the doctors' role as medical educators in the clinical context and an examination of how they are supported in this role. The chapter continues with an assessment or an examination on what motivates the doctors to teach, what challenges and barriers they have to deal with in their educational role, and a consideration of how medical educators' develop in their educational roles in terms of the opportunities they embrace in the clinical context. The importance of these topics sets the stage for discussing how these issues are addressed in this study, the details of which are addressed in Chapter 3.

The literature review addresses important studies based on the relevant and previous literature discussion. An initial literature search was performed in 2014 and updated toward the culmination of the work and the writing of the thesis in 2020 and 2021. The search was conducted in multiple databases, including Scopus, PubMED, and Google Scholar, with the following and related terms. The following terms were used: "medical teacher," "medical educator/ teacher," "clinical educator/teacher," "medical educator/teacher identity," "roles," "responsibilities," "job descriptions,"

"characteristics," "clinical setting/context," "motivation to teach," "staff/faculty development," "in-service training," "faculty training/development," "continuing medical education," "medical faculty," "medical education," "challenges," "barriers," and "opportunities and critical realism." The list below shows examples of the keywords for literature search. The terms were followed by appropriate truncation symbols such as (* or $). For further refinement, Boolean operators such as (OR/AND proximity) were used. The search was limited to original research articles and reviews. Editorials and essays were excluded from the search. In addition, manual searches were conducted using references from the articles identified by the research and in the following journals: Academic Medicine, Medical Education, Medical Teacher, and Teaching and Learning in Medicine. Expert opinions, such as supervisors, were also included in relation to some books and papers selection. The literature search results, including bibliographies, citations, and references, were managed through a Mendeley reference manager. The keywords for the search were:

- Doctor OR Clinician OR Physician

- Role OR responsibility OR Characteristics OR Behaviour

- Opportunities OR Challenges OR difficulties OR Opportunities OR problems OR worries OR concerns OR Barriers OR Obstacles

- Educational OR teach* OR model OR facilitate* OR supervise* OR mentor* OR Provider*

- Workplace OR "clinical setting" OR Hospital OR clinic

2.1 The Identity of Medical Doctors as Teachers/Educators

Health care providers' roles are not limited to hospitalized patients but extend to various levels within and beyond health care institutions. Accordingly, their contributions to patient care have been addressed in published literature through various terminologies - Supervisor, mentor, educator, trainer - in reference to the preparation of learners and practitioners (Board of Medical Education, 2006; Harden & Crosby, 2000; Steinert, 2014). Health tutors are academically prepared through university programs and employed in areas of specialties, while others are clinicians employed by the health care services. For this study purpose, the term "Clinical Teacher" will be used as a reference for medically trained teachers (Steinert, 2014).

Definition of Medical Teacher/Educator

The term "teacher" has primarily been considered a job, whereas while "educator" refers to health professionals with specialized expertise. However, both terms are synonymously used, and there is no consensus among medical education literature about these two terms in reference to clinical settings (General Medical Council, 2011; Hu et al., 2015).

For this study purpose, Steinert's (2014) definition for medical professionals engaged in teaching roles seems more appropriate, including their developmental stage, the conditions that influence their teaching and learning, and overall cultural impact. Moreover, this study considered clinically qualified and practicing doctors engaged in teaching medical students. As Steinert (2014) stated:

> Faculty refers to all individuals who are involved in the teaching and education of learners at all levels of the continuum (e.g. undergraduate; graduate; postgraduate; continuing professional development), leadership and management in the university, the hospital, and the community, and research

and scholarship, across the health professions (e.g. communication sciences; dentistry; nursing; rehabilitation sciences). (2014, p. 5)

Published literature has been extensive on subjects related to the effectiveness of the teacher and teaching activities, environmental factors, and students' perceptions of the teachers and teaching activities in the clinical setting in the field of medicine (Okoronkwo et al., 2013; Pierce et al., 2020; Schönwetter et al., 2006; Singh et al., 2013). On the other hand, perceptions of those teachers about their educational roles have remained less discussed and researched (Cantillon et al., 2019; Finn et al., 2011; Mann et al., 2001). This study focused on this less examined area and considered clinical tutors, those who are medically trained, those who teach in clinical settings, are employed as academics or care providers, and those who prepare undergraduate medical students or junior doctors in structured programs of postgraduate training. I will refer to junior doctors in structured postgraduate training as "residents."

Becoming a Clinical/Medical Teacher

Becoming a 'good' clinical teacher is a complex process (Bell et al., 2020; Finn et al., 2011), and it requires both cognitive (related to thinking and reasoning) and noncognitive teaching skills (related to motivation, integrity, and communication). However, how clinicians become teachers remains a crucial question in the literature (Cantillon et al., 2019; Finn et al., 2011; Goldie et al., 2015). A recent scoping review by Cantillon et al. aimed to investigate the relationship between the development of clinical teacher identity and the workplace environment. The review indicated that, for the clinician, being a teacher has been a term that gained greater acceptance in the medical field.

This acceptance of the role of the teacher has meant that doctors must establish a balance between the time and attention devoted to their patients on the one hand and their students on the other. This balance will be located at a different point as a function of context and the target population being served. Accordingly, a clinical teacher is the one active clinically, academically educated, attentive to the growing need for related research and patient care. The review also suggests that educational institutes should maintain and develop the professional identity of clinical teachers as an important part of what it is to be a doctor.

Professional Identification is a type of social identification. It is the sense that an individual has of belonging to his/her profession, be that medicine, law, education, or whatever (Beauchamp & Thomas, 2009; Holland et al., 1998; Stubbing et al., 2018; Urrieta, 2007). Professional identity consists of an individual alignment of roles, responsibilities, attitudes, values, skills and ethical standards to be consistent with the practices accepted within a specific profession (Adams et al., 2006; Stubbing et al., 2018). Professional identity is a dynamic phenomenon (i.e., a continuous process that starts from the university programme and continues as an individual enters professional life; (Ashby et al., 2016; De Lasson et al., 2016; Trede et al., 2012). For example, in medical education, Cruess et al. (2014) defined the professional identity of doctors as being "A representation of self, achieved in stages over time during which the characteristics, values, and norms of the medical profession are internalized, resulting in an individual thinking, acting, and feeling like a physician" (2014, p. 1447).

Cruess and others further suggested that the role of the medical teacher be redefined as a facilitator and supporter of learners while going through the journey of

professional identity formation (Birden & Usherwood, 2013; Clandinin & Cave, 2008; R. L. Cruess et al., 2014). Furthermore, they suggest such redefinition shifts the view of professionalism from one focused on "doing" the job to one focused on "being" professional (Cantillon et al., 2019; Clandinin & Cave, 2008; R. L. Cruess et al., 2014).

Rodgers et al. (2008) stated that teacher identity is the core of the teaching profession. At the same time, studies revealed that teacher identity development varied during the transition to teaching (Colliander, 2019; S. Cruess et al., 2019; Drennan et al., 2017; van der Want et al., 2018). For example, the teacher identity for individuals who enter the university from a professional background differs from those who make the transition from a PhD to a lecturer (Thea van Lankveld et al., 2017). It suggests that this sort of background/experience is close to the experience of the clinical teacher. However, there is a lack of research in relation to the identity formation of a medical teacher (Bleakley et al., 2011, p. 216).

The literature in recent years have seen a growing interest in medical doctors as teachers, and few studies have been conducted in the last few years (S. Cruess et al., 2019; T. van Lankveld et al., 2017; Thea van Lankveld et al., 2016, 2017; Young et al., 2014). The rapid change in the world of medicine brought new identities to medical doctors in clinical settings. The doctors' identities have expanded from their primary role being medical practitioners to being medical teachers and researchers (S. Cruess et al., 2019).

The literature has developed and focused on university teacher's identity. For example, one systematic review (van Lankveld et al., 2017) found that those who came from a professional background and became university teachers mainly

identified themselves with their primary profession in the first year of teaching. Furthermore, they reported that those teachers found integrating the teacher identity into their medical identity or researcher identity to be challenging. In addition, those studies have reported that this identity will last for a maximum of three years until the phrase "being a teacher" become their identity or their second identity, which they also refer to as *Blended Professionals* (Browne et al., 2018; van Lankveld et al., 2017).

Furthermore, van Lankveld et al., by using both figured worlds theory and the dialogical self-theory mentioned below, suggested that individuals form an identity by integrating their life stories and experiences into internalized evolving stories of the self that provides them with a sense of unity and purpose in life. This life narrative integrates one's reconstructed past, perceived present, and imagined future. Therefore, they found that five different identity narratives, listed below, can support the teachers in their early professional years to integrate teachers' roles into their professional identity). van Lankveld et al. (2017) five identity narratives are as follows:

> (1) coalition between the I-position of teacher and other I-positions; (2) no integration of the I-position of teacher: holding on to other I-positions; (3) construction of the I-position of teacher and other I-positions as opposites; (4) coalition between the I-position of teacher and the third position of coordinator; and (5) meta-position: trivializing the importance of status. (2017, p. 611)

Many factors need to be considered to sustain or strengthen the teacher identity within the organization they are working with, such as the work environment, the context of higher education, student-teacher relationship, and

continued professional development activities (Griffiths et al., 2014; McCormack et al., 2014; O'Doherty et al., 2021; Skelton, 2013). The systematic review by van Lankveld et al. (2017) also revealed a number of psychological processes that were important in developing and maintaining teacher identity, which included the sense that one's contribution is appreciated by students and peers, the sense of belonging and connectedness to the organization within which one works. However, these studies do not discuss the factors that motivate those teachers to continue teaching in those early years, despite the challenges and barriers of their teaching environment. This limitation of their study may be due to the theoretical framework they have used to discuss the teachers' identity.

Several theories have been used to study identity, identify formation and context in education. For example, theories such as figured worlds theory (Bartlett, 2007; Holland et al., 1998; Urrieta, 2007) and dialogical self-theory (Akkerman & Meijer, 2011; Badia & Iglesias, 2019; van Lankveld et al., 2021) has been in recent years used by the medical profession to make sense of the doctors' identity formation (Bennett et al., 2017; Brown et al., 2020; Stubbing et al., 2018).

Dialogical self-theory (DST) is a psychological concept that describes the mind's ability to imagine the different positions of participants in internal dialogue in close connection with external dialogues. The DST uses two concepts, self and dialogues, to understand the connection between the self and society. The concept of selfishness refers to something internal and within the person's mind, whereas the concept of dialogue is something external. The process takes place among communicators. There is no sharp separation between the anxiety of self and the outside world but a gradual transition. The DST sees the "self as a society of mind

where the mind is populated with internal and external self-position domains. The dialogical relationships emerge with the possibility to further develop and renew self and others as a central part of society at large (Akkerman & Meijer, 2011; Badia & Iglesias, 2019; Monereo & Badia, 2020; van Lankveld et al., 2021).

The dialogical self-approach was applied in a recent study by Monereo and Badia (2020) to defend that implementing a sustained innovation can be achieved if the teachers' professional identity is changed. The study also indicated that using the DST revealed that identity change also implies a change in the I-position (individual) or a change in the We-position (team). In addition, using DST also deepens the understanding of different ways in which the process of educational change works in reality. This study further revealed that teachers' characteristics, including their attitudes, experiences, and motivation, also affect the implementation of educational innovation, similar to what has been reported in the field of education (Abrami et al., 2004; Ghaith & Yaghi, 1997).

The main limitation of using the dialogical self-approach in research studies is that the theory has not been able to come up with a broader example to apply it to the real world. In addition, insufficient empirical evidence of its applicability made many researchers critique this theory. The complexity of this theory concerning the distinction between the self and non-self makes testing it difficult. Therefore, future research is needed to show how to apply the dialogical self-approach in real-life scenarios to link between methodological tools and the dialogical self-approach (Monereo & Badia, 2020). In addition, researchers need to show the effect of theoretical and applied knowledge obtained from their research (Monereo & Badia, 2020).

Holland (1998) first introduced the concept of Figured World Theory in 1998. Figured World is the "socially and culturally constructed realms" (Holland et al., 1998, p. 52) in which people are distributed. This construction enables people to relate to one another in different ways and helps them learn and develop through a range of activities. Thus, the social encounters in these Figured Worlds have major significance and so do the people's positions.

In short, Figured Worlds are essential processes that shape and give form to an individual. This concept is evidently an idea that can apply to professional identity construction across a wide range of professional settings, and not simply in medicine, or education, as mentioned in Section (2.2.). However, different researchers have applied Figured World Theory's concepts inconsistently due to its lack of concrete and succinct definition. Despite being part of Holland et al.'s (1998) bigger blueprint of understanding and studying identity and agency, the framework is not comprehensively used, as has been argued by Urrieta (2007).

Teacher identity is the core of the teaching profession (Rodgers & Scott, 2008). However, studies revealed that the development of teacher identity varied during the transition to teaching. For example, the teacher identity for individuals who enter higher education teaching practice from a professional background differs from those who make the transition from a PhD into a lecturing post. This sort of background/experience (i.e., "doctors to teacher") is more like "professional to teacher" than like "PhD to teacher." However, there is a lack of research in relation to the identity formation of a medical teacher (Bleakley et al., 2011, p. 216). The rapid change in the world of medicine has brought new identities to medical doctors in clinical settings leading to increasing specificity of specialties, with increasingly

differentiated skill sets; for example, perhaps the statistical knowledge required of the epidemiologist, as compared to the knowledge of physics required of the radiologist. Such a role development has expanded the medical doctors' primary role from just being a medical practitioner to one that also is a teacher and researcher.

The literature, over time, has developed and focused on university teacher's identity. One systemic review (van Lankveld et al., 2017) found that those who came from a professional background and became university teachers mainly identified themselves with their primary profession in the first year of teaching. According to the same review, this identity tended to last for a maximum of three years until the phrase "being a teacher" becomes their identity or their second identity, a circumstance which they also refer to as "blended professionals."

Many factors need to be considered in attempts to inculcate, sustain and strengthen the teacher identity within the organization they are working with, such as the work environment, the context of higher education, student-teacher relationship, and continued professional development activities (Spencer, 2014; Steinert, 2000; Steinert et al., 2019). Professional development here would apply to both the clinical professional and educational professional aspects of the doctors' work. Here, of course, the notion of professional development applies both to that which is relevant to a doctor's clinical practice and also to that directed toward enhancing his or her teaching skills. Circumstances or personal orientation may determine that one or other of these sources is more or less influential. The systematic review by van Lankveld (2017) also revealed a number of psychological processes that were important in developing and maintaining teacher identity, which included a sense of appreciation, sense of connectedness, recognition, commitment, and role models.

Characteristics of the Medical Teacher

Students identification of influential clinical teachers has gained considerable investigation (Gray et al., 2017; Melvin et al., 2014; Wenrich et al., 2015). Nevertheless, and not surprisingly, the focus of these reports have not changed much over time (Irby, 1994; Kilminster & Jolly, 2000; Martin et al., 2014; Sutkin et al., 2008).

These studies reported numerous influential characteristics unique to clinical teachers as excellent clinical role models. For example, role models are knowledgeable in their subject matter, accessible and available to the learners, willing to answer questions, have an evident commitment to teaching, and make an effort to teach in different clinical conditions (Piquette et al., 2015; Richard et al., 2016; Skeff et al., 1997; Stephan & Cheung, 2017). In addition, those studies revealed that students would be more inclined to perceive those other qualities when they are manifest in people who are teaching in the specialties to which they are most committed or indeed those teachers will respond most helpfully and supportively toward students who present as interested in the areas in which they teach.

In addition, influential clinical teachers appeared committed to certain aspects expected of the role: Providing appropriate support to the learner levels by knowing when to involve the learner in the care of their patients and allowing the practice of clinical skills (Dolmans et al., 2002; Dory et al., 2015; Fida et al., 2017). At the same time, other related studies reported that influential clinical teachers are fun to work with and have personal characteristics that make the learner feel welcome and valuable and part of the healthcare team. In addition, some studies emphasized other related characteristics such as being collegial, enthusiastic, approachable, supportive,

helpful, sympathetic, warm, well organized, genuinely interested in the leaner and treating learners well (Busari et al., 2005; Snell et al., 2000; Whalen & Wendel, 2011). The above-listed characteristics of the clinical teacher are an excellent source of educational development guidance for the young clinical teacher to have such a list in mind and try to cultivate these characteristics in themselves.

In addition, several studies have recognized a change over the learners' careers in the perceptions of just what constitutes the ideal teacher (Haider et al., 2016; Low et al., 2020; Ooi et al., 2021). For example, while the teacher as a source of information and instruction is equally important across the entire period of undergraduate medical education, senior students come increasingly to value the role of their teachers as supervisors, mentors and role models (Beaudoin et al., 1998; Cochran et al., 2003; Haider et al., 2016; Paukert & Richards, 2000). As a result, learners progress in this learning journey from dependence on their teachers, collaboration with them, and independence while pursuing their learning needs (Dolmans et al., 2002). Not surprisingly, other studies in other socio-cultural contexts found similar differences in learners' perceptions of their ideal teachers (Al-Mohaimeed & Khan, 2014; Kua et al., 2006; Low et al., 2020; Yazigi et al., 2006).

2.2 Medical Teacher's Roles and Responsibilities

Over 4 decades have passed since the WHO (1966) recognized the importance of training doctors to teach yet we are still finding that few are prepared for their diverse educational roles (Gibbs, 2013; Steinert, 2005, 2014). Jason in 1962 reported:

The one task that is distinctively related to being a faculty member is teaching; all other tasks can be pursued in other settings, and yet, paradoxically, the central responsibility of faculty members is typically the

one for which they are least prepared. (Cited in Westberg & Jason, 1981, p. 100)

And yet again:

For most consultants . . . medical education and training is an integral part of the working day. "Teaching" is something that is done in and around the primary task of patient care, usually without training or feedback on how it is being done. In the past it was assumed that anyone could teach, but is this really something that should be left to chance? (Swanwick, 2008, p. 339)

In recent years, reports have shown that the need for adequate training for doctors' educational roles has increased (Steinert et al., 2016, 2006; WHO, 2013). This increased perception of the requirement results from the rapid changes that have occurred in health care delivery measures, clinical practice and medical education (MacDonald et al., 2013; Yvonne Steinert, 2011; WHO, 2013). For example, the UK's General Medical Council (GMC) stated that "the doctor "must be competent in all aspects of [their] work, including management, research and teaching" and "[they] should be prepared to contribute to teaching and training doctors and students" (General Medical Council2013, pp. 6, 14). This GMC statement suggests that teaching and training is a professional responsibility and duty, and such an argument is also made for Canadian and American medical doctors (Frank et al., 2015; Van Der Lee et al., 2013).

Millions of dollars per annum and a large number of hours are being spent on training and retraining the medical teacher to improve teaching effectiveness and enable the teachers to be able to deal with their multiple roles more effectively (Abdelhak, 1996; McLean et al., 2008).

The role of doctors in clinical settings is very complex due to the multifaceted nature of the medical profession (van Lankveld et al., 2016). Doctors' main concern is patient care, and this leads the clinical and teaching roles in precedence (Steinert et al., 2017; van Lankveld et al., 2016). The medical teacher is observed to move around different clinical settings - the bedside, corridors and teaching rooms - in order to achieve their teaching goals (Molodysky, 2007; Pearce, 2003; Santhosh et al., 2018; Steinert et al., 2017).

More clarity is required in the definition of just what constitutes the roles of the medical teacher. Attempts at definitions often comprise lists of the attributes of the outstanding teacher, descriptions of what these people are like rather than the specific roles that they fulfil. For example, Swanwick (2008) suggested three distinct medical teachers' trends: increasing accountability, a discourse of excellence and professionalization. He explained that one way of expressing these trends is to develop standards and frameworks for professional development (Swanwick et al. 2010). One such framework, the teachers' role framework, was described by Harden and Crosby (2000), where excellent medical teachers are role models, effective supervisors, dynamic teachers, and supportive individuals, assessors, planners, and resource developers (Ramani & Leinster, 2008). However, doctors still learn how to teach by reproducing their role models and teaching how they were taught as junior doctors (Cheung & Stephan, 2017).

The professional Standards Framework for medical teachers released in 2009 is another example of such a framework developed in the UK by the Academy of Medical Educators(2014). They claimed that with this framework, the medical

teacher will be able "to identify their development needs and so support and guide their own professional development as medical educators" (2014, p. 7).

The UK Academy of Medical Educators further claimed that medical teachers can use the standards framework to support and maintain good medical practice, professional development, annual appraisal and revalidation. In addition, organizations may use the standards framework to support their faculty development initiatives and recognize teachers' achievements in their educational roles (Academy of Medical Educators, 2014). They stated that these sets of standards need to be reviewed regularly by their stakeholders and various professionals to guarantee their relevance to their stakeholders' needs.

The AoME defined the medical educators' competencies in terms of values, domains and elements. They report four core values that they suggest in order to maintain the beliefs, values and professional conduct expected of medical teachers. These characteristics (Academy of Medical Educators, 2014, pp. 10–11) were expressed as the following:

(1) Promotes quality and safety of care,

(2) Demonstrates professional identity and integrity,

(3) Are committed to scholarship and reflection in medical education, and

(4) Demonstrates respect for others. (pp. 10–11)

In addition to these values, they report five practice domains with a detailed description of their elements, and they claim that these domains show "the expected understanding, skills and capabilities" (Academy of Medical Educators, 2014, p. 6). The domains (Academy of Medical Educators, 2014, p. 1) have been identified below, and parallels can be drawn here with "The UK Professional Standards

Framework" provided by AdvanceHE in the UK (The Higher Education Academy, 2011) for teachers across higher education.

(1) Designing and planning,

(2) Teaching and facilitating learning,

(3) Assessment of learning,

(4) Educational research and scholarship, and

(5) Educational management and leadership.

Unlike in the UK, the United States of America (USA) has seen such frameworks being developed at the level of specialties rather than for the profession as a whole. Even though the Liaison Committee on Medical Education (LCME), which is the accrediting body for the American medical school's educational programs, produces guides and standards, evidence from students feedbacks, for example, for the gynaecology and obstetrics specialty shows students dissatisfaction with the teaching. Therefore, in such specialties, to enhance teachers performance and thus patient care in those particular fields, they have identified teaching skills that they thought would be appropriate to their field of specialty in addition to generic skills need from all medical teachers, field (Hand, 2006; Harris et al., 2007; Hueppchen et al., 2011). Other initiatives to develop a framework and sets of competencies and educational roles for medical teachers are observed, where a standard is established for the whole country in the USA. Srinivasan et al. (2011) described "The Teaching as a Competency Framework," which examines competencies for medical educators and clinical teachers in North America. The authors defined six core competencies for teaching in medical education:

(1) medical knowledge

(2) learner-centredness

(3) interpersonal / communication skills

(4) professionalism

(5) practical-based reflection, and

(6) systems-based practice

They also proposed four specialized teaching competencies:

(1) curriculum design and implementation

(2) evaluation and scholarship

(3) leadership and

(4) mentorship

While many more studies have identified competencies required of the medical educator (Hesketh et al., 2001; Molenaar et al., 2009; Ross et al., 2014); there is a gap in the existing literature about the impact or the role that context or environment in which medical teachers learn and practice has on the teachers' roles (Steinert, 2014; Swanwick et al., 2010). Furthermore, it is noted that empirical evidence looking into these competencies and the excellence in teachers behaviour (Huff et al., 2014) in the clinical setting are limited as it is often focused on academic settings.

Conception of Teaching and Teaching Methods

Pratt (1992) defined conceptions as the interpretations that a person has of their experiences of a particular phenomenon in a particular context. He further stated that once this conception was established, it guided that person's understanding and actions. For example, researchers have found that teachers' conceptions of teaching were defined by their teaching and learning experiences. (Gao & Watkins,

2002; Kember & Gow, 1994; Marton & Booth, 1997; Pratt, 1992). Furthermore, they found that this experience is unique to that individual and was influenced by context and culture. Therefore, understanding medical doctors' teaching experiences in the clinical setting may provide information about their conception of teaching, which may have implications for their professional development as teachers in such a context.

Some of the studies on lecturers in higher education explored the relationship between the conceptions of teaching and learning, approaches to teaching and learning and students outcomes (Prosser et al., 1994; Samuelowicz & Bain, 1992). They make the general point is that good teaching is predicated on an understanding of how human learning actually works. Some of these studies investigated the orientations and beliefs about teaching (Kember & Gow, 1994; Ottenhoff- de Jonge et al., 2021; Samuelowicz & Bain, 2001; Tsai & Yan, 2021), whilst others focused on teaching approaches (Cao et al., 2019; Coffey & Gibbs, 2000; Gibbs & Coffey, 2004; Trigwell et al., 1994). Another group of studies concentrated on teaching conception (Gow & Kember, 1993; Pratt, 1992; Samuelowicz & Bain, 1992; Trigwell et al., 1999). These studies focused on university lecturers' own understanding of what teaching means to build a conceptual framework of teaching that guides their individual practice as teachers.

Categories of the Conception of Teaching

Not all teachers conceptualize their practice in the same way. The literature described the lecturers' conceptions of teaching as categories; these vary from two (Gow & Kember, 1993) to five categories (Samuelowicz & Bain, 1992). However, in most studies, these categories can be divided into two general headings known as

teacher-cantered and student-cantered conceptions (Kember, 1997; Samuelowicz & Bain, 1992, 2001; Trigwell et al., 1999). In the first case, the teacher thinks about their job as being a matter of providing information from their own knowledge-base to be transferred to the student. In the second case, the task is perceived as a matter of designing and providing experiences for students from which it is hoped that they will learn. (Samuelowicz & Bain, 1992). This latter model could be understood as being based on constructivist theories of human learning as derived from the work of Piaget and Vygotsky (National Research Council, 2000, pp. 80–81).

Most of the studies into the conception of teaching agree on a number of features that characterized the teacher-cantered categories (Kember, 1997; Prosser et al., 1994; Samuelowicz & Bain, 1992, 2001; Trigwell et al., 1999). The subject's content is the main focus for these lecturers; thus, they emphasize how the course content is organized, structured and have the intention to present to students in an easy way to understand. In addition, the teachers from these categories focus on the need to relate to students' existing levels of understanding. In contrast, lecturers identified as student-cantered see teaching as attempting to facilitate understanding and conceptual change/intellectual development.

Basic categories of teaching conceptions include learning facilitation and knowledge transmission (Gow & Kember, 1993) and information imparting, knowledge transmission, facilitating understanding, changing students' conceptions, and supporting students' learning (Samuelowicz, 1992).

Rationale for Clinical Teaching

Medical education in clinical settings is important for many reasons. Medical educators and teachers' rationale for clinical teaching is based on many reasons,

including professional/personal goals, deciding their professional identity, expectations, and needs (e.g., promotion; Bartle & Thistlethwaite, 2014). Further justification for clinical education is the provision of excellent education through role modelling, research and support networks (Bartle & Thistlethwaite). Moreover, clinical education enhances the clinical skills for clinicians/clinical students through knowledge consolidation and application on actual patients and clinical settings (Bradley & Bligh, 1999; Lam et al., 2002; Won & Wong, 1987). Further, it improves the clinical students' professional roles and personal skills and helps them obtain related healthcare values and attitudes (Won & Wong, 1987). McCabe (1985) termed clinical education as ""the heart" of professional education." The clinical teaching sessions provide significant opportunities for the clinical students to contribute to clinical practice activities, including communication with patients, taking patients' history and physiological examination (Burgess et al., 2020; Sinclair, 1997). Also, during clinical education, staff, students, and patients enjoy being included as part of the process (Peters & ten Cate, 2014). In summary, there are many reasons which indicate the importance of clinical teaching for clinical educators and students.

2.3 Challenges and Barriers of Medical Doctors as Educators

Despite the potential importance of clinical teaching for both students and teachers, many studies have reported some challenges. For instance, Spencer (2003) reported that clinical teaching is found to lack consistency, not intellectually stimulating, and unplanned. In addition, he stated that clinical teachers are confronted with the following challenges: a reduced number of patients are available for teaching, an increased number of students intake, doctors face a competing

environment in which demands are constant, less time available to perform their tasks, insufficient resources and poor initiative for teaching. Fletcher (2003) reported similar findings where they identified the following challenges associated with bedside clinical teaching: unmotivated and tired staff, time consumption, fear of patients' discomfort, lack of patients' privacy and lack of clinical teacher ability to teach in the clinical settings. Further, Swanwick and McKimm (2010) reported similar challenges, which are summarized in the following points: high number of students in limited clinical placements, the conflict between clinical students needs and patients' rights and expectations, limited time for teaching, busy workloads, as well as service pressure in the clinical settings. Moreover, they add to this list the changing expectations from students/residents themselves and increased demand from professional bodies, regulators and society (Swanwick & McKimm, 2010).

A patient's character is another challenge faced by doctors during clinical teaching. These challenges included interaction with patients who are hostile, angry, uncooperative, disinterested, overly talkative or experiencing chronic pain (Shapiro et al., 2016).

A patient's character is another challenge faced by doctors during clinical teaching. These challenges included interaction with patients who are hostile, angry, uncooperative, disinterested, overly talkative or experiencing chronic pain (Shapiro et al., 2016).

Moreover, medical teachers face many emergent challenges like any educators of higher education, such as increased number of students, and great diversity in student skills, abilities, and experiences, student behaviour, issues of difference between individuals (include gender, race, ethnicity, sexual orientation,

religion, urban/rural, or political commitments, among others), increase in volume and complexity of the scientific and medical knowledge base, the increasing dependence on a variety of educational technologies, and resource availability (Densen, 2011).

Many studies in the literature have highlighted and identified challenges faced, particularly by medical teachers. In the critical realist view, most of the challenges identified in the literature lie in the empirical domain of the stratified reality. However, many of those studies are descriptive of circumstances, rather than being analytical of underlying causes; not many explored the underlying reasons for why such challenges become manifest and experienced by medical teachers in clinical settings. What must the world be like for those doctors who teach in clinical settings to experience those challenges and deal with them? Furthermore, what has driven them to find ways to improve their teaching skills?

2.4 Motivation

Motivation is the energy that drives an individual to act and function at a conscious or unconscious level toward goal achievement (APA Dictionary, 2020). Motivation to teach has been discussed from different perspectives in the literature. For example, Dornyei and Ushioda (2011, pp. 21, 60, 160, 138–140) argued that teacher motivation in school has four main elements: obvious intrinsic motivation, demotivating factors, lifelong commitment and social contextual influences related to the conditions and constraints. Sinclair (2008) argued that teaching motivation is associated with three main factors: retention, attraction, and concentration in teaching. Both definitions showed that motivation to teach is not a simple process or relationship; it is a more complicated relationship.

Consequently, many scientists applied a range of motivational theories in their study to understand the context related to motivation (Han & Yin, 2016). Motivation in clinical teaching is associated with two main predetermined factors: personal satisfaction and the opportunity to attract students to "one's specialty area" (Dahlstrom et al., 2005). The following section briefly describes the main theories of motivation related to clinical teaching (Cook & Artino, 2016; Kusurkar et al., 2012).

Theories of Motivation to Teach

Motivational theories development took place recently in the 20th century, and dozens of theories of motivation were developed that can be applied in the context of teaching in the clinical settings (Kusurkar et al., 2012). Below is a short description of the most commonly used or potential useful theory in medical education.

The Need for Achievement theory (McClelland, 1961; Murray, 1947) is based on the principle that individuals have a tendency called "the needs to achieve" and apply their power to overcome challenges by choosing something challenging as well as complex and try to achieve it as quickly as possible (Murray, 1947, pp. 80–82). However, Murray (1938), the first author to use the term "need for achievement," did not believe that motivation is a fixed attribute; instead, he suggested that it can be directed to improve learning. Although this theory has been used in education but yet it has not been used in medical education. However, (Kusurkar et al., 2012) suggested this theory be used to overcome challenges clinical academics face in the clinical setting to motivate learners.

Maslow's theory of motivation is based on the principle that the human being is driven or motivated to act according to their needs for self-actualization (Maslow,

1970, p. 242). In other words, a human will act for self-actualization if the underlying needs such as physiological, safety, love and belonging, and esteem are fulfilled (Maslow, 1970, pp. 54–58). In clinical teaching, the need for academic achievement or progression can be viewed as the process for fulfilling the self-actualization level of needs (Kusurkar et al., 2012).

The theory of Self-determination is based on the principle that an individual's behaviour is influenced by the level, the quality or type of motivation (Deci & Ryan, 1985, 2000; R M Ryan & Deci, 2000; Richard M. Ryan & Deci, 2000). The theory suggests two types of motivation: extrinsic and intrinsic (Kusurkar et al., 2012). Extrinsic motivation refers to an individual's strive to act to prevent punishment or losing importance or gaining a reward, unlike intrinsic motivation, in which individuals act to achieve some personal interest or goals (Kusurkar et al., 2012). Based on different studies by the authors of the theory, intrinsic motivation leads to an excellent learning process and improved outcomes (Deci & Ryan, 2000). Therefore, the Self-determination theory (SDT) consider intrinsic motivation as "the desired type of motivation," and it is built three main needs: autonomy, competence, and relatedness (Deci & Ryan, 1985, 2000; R M Ryan & Deci, 2000; Richard M. Ryan & Deci, 2000; ten Cate et al., 2011). In clinical settings, the Self-determination theory, particularly intrinsic motivation, can be applied or assess the clinical teacher's interest or internal drive to teach medical students. Thus in the clinical setting we would seek to find doctors motivated to teach, not primarily by desire for promotion or remuneration, but rather by the satisfaction that they derive from their clinical expertise, and the desire to communicate that expertise to their junior colleagues - their students - in relationships of mutual respect and trust.

Medical Doctors Motivation to Teach

In the previous section, the main theories of motivation in clinical teaching were discussed. The theories help to understand motivation in clinical teaching among medical educators. Understanding motivation among clinical teachers is vital for the positive delivery of clinical sessions for medical students (Browne et al., 2018; Dahlstrom et al., 2005; Tariq & Ali, 2014). Different studies were conducted to comprehend factors that contribute to motivating clinical teachers to perform their duties effectively. For instance, Fulkerson and Wang-Cheng (1979) conducted a survey to determine the motivation and reward for physicians to practice as a preceptor for their students. They found that personal satisfaction was the highest motivator for the physician to practice clinical teaching. The next motivator in their study was creating chances to attract students to their medical specialty and to inculcate a sense of respect among the medical students. Another published report from the World Federation of Medical education (Schormair, 1992) indicated that the availability of rewards and teaching skills, more values on promotions for academic teaching, standard teacher-student ratios and same time anticipation of clinical service and research were factors that motivate medical teachers to perform their clinical teaching duties.

Dahlstrom et al. (2005) found in their study that intrinsic motivation, including self-sacrifice, knowledgeability, personal skills, and truly seeking personal development, were the main influences to motivate Australians to teach in a medical school or hospital. On the contrary, perceptions that teaching is a time waste, the substantial workload in their clinics, and no meaningful involvement in course design are considered demotivators for clinical teaching. Dahlstrom et al. (2005)

study involved 75 senior clinicians from an Australian medical school hospital who aim to examine their motivations to teach medical students. In another study (Lowenstein et al., 2007), which assessed over 500 medical academic staff's intention to leave the academic career, found that the factors such as difficulty in balancing between career and family responsibilities, no professional development or teaching and clinical service recognition were the main demotivator to continuing the career as a medical educator. Many other surveys would suggest that most clinicians feel intrinsically motivated to teach. Clinicians teach because they want to pass their skills and develop others, enjoy spending time with students, feel a professional responsibility, find it an opportunity to show their field of interest, and believe that it makes them better doctors (Bartle & Thistlethwaite, 2014; Budden et al., 2017; Dahlstrom et al., 2005).

However, despite this intrinsic motivation to teach doctors, actual teaching experiences in the clinical setting may not be satisfying, and burnout might result. Teaching may begin to feel less like joy and more like a burden. In a recent study in Taiwan (Chaou et al., 2021), clinical teachers expressed their motivation to give their students feedback because they are morally obliged to do so, such as feeling responsible for their learners and being committed to their teaching role. The clinical teachers also reported that they were motivated to give the medical students feedback when they understood the importance of feedback. In summary, it is very important to understand the intrinsic and extrinsic factors of motivation to sustain the motivation of clinical teaching.

2.5 Improve Educational Roles (Faculty Development)

Haycock (1998) argued against the belief that medical schools were places where the best doctors simply pass on their acquired skill and wisdom to their students and that clinical competence and effectiveness were not all there is to being a good clinical teacher. Instead, effective teachers facilitate learning and are not just providers of facts and experience (Berman, 2015; Biehn, 1976; Weimer, 2013).

In recent years, there has been an increased interest in how faculty development can prepare medical teachers "for their multiple roles as teachers and educators, leaders and managers, and researchers and scholars" (Steinert, 2014, p. v). For clinical teachers to meet the above-identified competencies and educational roles, it has been recognized by educational experts that there is a need to develop a well-designed faculty development programs that include a variety of activities to be implemented and evaluated (Steinert, 2014; Steinert et al., 2006). In addition, others have suggested that faculty development activities need to be reformed and redesigned to improve teacher effectiveness (Clark et al., 2004; Skeff et al., 1997; Wibbecke et al., 2015). Steinert et al. (2006) reported on the impact of faculty development initiatives on the different roles of faculty members. These include improved teaching effectiveness, positive change in attitudes toward teaching, a greater sense of belonging to a community and educational leadership and innovation (Steinert et al., 2016; Steinert et al., 2012). In addition, Steinert et al. reported a positive change in educators' attitudes toward their own organization, leadership abilities and leadership roles, increased knowledge and skills in relation to leadership concepts, principles, strategies and changes in leadership behaviour.

It has been reported that the intention and the focus on faculty development are to improve and support educational quality for both the undergraduate students and postgraduate residents (Yvonne Steinert, 2011; Swanwick, 2008). Therefore, diverse faculty development initiatives and activities are offered by medical schools (and their affiliated hospitals), specialty societies, regulatory bodies, and professional organizations; success in such initiatives is necessary if health care quality is to be maintained in the future (Steinert, 2014).

The definition of faculty development has evolved over time from being the sole responsibility of the institutions to prepare teachers for their educational roles to being the responsibility of both the individual and the institutions in recent years (Baker et al., 2018; Centra, 1978; Salam & Mohamad, 2020; Steinert et al., 2007; Steinert et al., 2005). Also, from a formally planned program (Bland et al., 1990) to one which is mixed between formal and informal activities (Steinert, 2010a, 2010b) and from group to an individual setting (Steinert, 2014).

Faculty development has been defined as:

any planned activity designed to improve an individual's knowledge and skills in areas considered essential to the performance of a faculty member in a family medicine department or residency training program. These areas include teaching skills, administrative skills, research skills, and clinical skills. (Sheets & Schwenk, 1990, p. 141)

As well as, "all activities health professionals pursue to improve their knowledge, skills and behaviours as teachers and educators, leaders and managers, and researchers and scholars, in both individual and group setting" (Steinert, 2014, p. 4).

In reviewing the literature for this study and other systematic reviews of faculty development in higher education (Sharma et al., 2014; Steinert et al., 2006),

there is very little understanding of what works (Amundsen & Wilson, 2012), "How and why does this work?' (Cook, 2012), or "What is it about this intervention that works for whom, and in what circumstances?" (Spencer, 2014). In addition, there is a gap in the literature on how faculty development interventions might influence medical educators ability to deal with challenges of their medical educational roles.

To answer the above questions, O'Sullivan and Irby (2011) found that most research on faculty development for medical teachers followed the positivist paradigm and argued that we need to use a more extensive selection of research methodologies than those employed. Bunniss and Kelly (2010) further argued that "an understanding of research paradigms can guide researchers in designing and performing medical education research" (Bunniss & Kelly, 2010, p. 545). They further recommended consideration of postpositivist, interpretivist, and critical theory paradigms and proposed the use of alternative research methods, including educational design research, success cases, and sustainability narratives. They argue that each of these methods can provide new insights into the process and value of faculty development (Bunniss & Kelly, 2010).

2.6 The Gap Identified in the Literature

From the above literature review, the following gaps have been identified in relation to this study:

- There is no such study in this area that has been conducted in Oman.

- The impact that context or environment in which medical teachers learn and teach has on their teaching roles.

- Research into medical doctors teaching roles and the issues that they encounter in direct engagement with students as opposed to the mechanisms of infrastructure and administration that supports that direct engagement

- What has been reported about the challenges that medical teachers encounter are mainly those observed and experienced by them; however, the structures and mechanisms that might influence the emergence of such challenges and the potential influences on how medical teachers deal with such challenges are limited.

Very little is known about how faculty development interventions might influence medical educators' ability to deal with the challenges of their medical educational roles.

2.7 Aim and Questions of the Study

The purpose of this study is to explore the opportunities doctors embrace and the challenges that they encounter in their medical educational roles, the factors that might influence them to embrace such opportunities and deal with such challenges, and the implications of these factors for faculty development.

The purpose of this study is to seek a deeper understanding of why doctors embrace certain opportunities and encounter certain challenges in their medical educational roles and the implications for faculty development.

Main Research Question

What drives doctors in their commitment to teaching and to improve their teaching practice in clinical settings?

Sub-Research Question

- What are the medical-educational roles of doctors in Oman?

- What opportunities and challenges do doctors encounter in relation to their medical-educational roles? And how do they meet them?

- How might influences, such as faculty development, impact on doctors' ability to embrace opportunities and deal with challenges in their medical-educational roles?

2.8 Chapter Conclusion

Clinical teaching and learning in clinical settings is the core of medical education. Doctors with their multiple identities are encouraged to practice effective teaching in these settings to ensure high-quality care to patients and learners. Although the clinical setting is a complex environment where patient care overlaps teaching and learning, a good clinical teacher always creates and embraces opportunities for teaching and learning and is a positive role model to enhance the transformation of their learners to future doctors. Therefore, the present study is designed and directed toward assisting clinicians to rise to these important responsibilities.

Chapter 3   Methodology and Methods

The purpose of this chapter is to explore the epistemological and ontological precepts of critical realism and examine the application of those principles to medical education research and practice. In addition, this chapter outlines how this research was conducted to use critical realism to answer the research question.

3.1 Philosophical Underpinnings of the Research Approach

The research design for this study was both partly fixed and partly emergent, fixed in terms of the methods being predetermined from the beginning of the research process and emergent in the details of the design of one stage of analysis was expected to emerge from the previous stage results (Creswell & Plano Clark, 2018, p. 107).

This study has taken a critical realist view to gain insights into faculty development from the challenges and opportunities doctors encounter and embrace in their clinical-educational roles. A critical realist view was considered the most appropriate fit for this exploratory research study which seeks to gain a deeper understanding of factors that might influence doctors to embrace their clinical-educational roles in busy clinical settings. This approach is appropriate because it is not content with mere description of factors; rather, it seeks to understand what is happening in order to explain "why things are as they are," and to hypothesize the structures and mechanisms that shape observable events" (Mingers, 2004, p. 100). Further in this chapter, I will explain what critical realists mean by mechanisms. As a researcher and an educational developer, I wanted to discover the underlying causes for why doctors may or may not be motivated to teach and improve their teaching

practice in clinical settings. This section explains how the research aim and research questions are addressed, generally informed by critical realism philosophy.

Critical Realism

Critical realism (CR) is a philosophy or meta-theory introduced by the philosopher Bhaskar in the 1970s (Cruickshank, 2007; Danermark et al., 2005, p. 4). He further collaborated with many other philosophers like Margaret Archer, Tony Lawson, Andrew Sayer, Andrew Collier and Alan Norrie, who claim to have come up with a deeper understanding of reality than what was available at the time (Archer, 1998; Bhaskar & Danermark, 2006; Porpora, 2013; Sayer, 1992). It is not easy to define critical realism. As stated by Archer et al. (2016):

> there is not one unitary framework, set of beliefs, methodology, or dogma that unites critical realists as a whole. Instead, critical realism is much more like a series of family resemblances in which there are various commonalities that exist between the members of a family, but these commonalities overlap and crisscross in different ways. There is not one common feature that defines a family, instead, it is a heterogeneous assemblage of elements drawn from a relatively common "genetic" pool. (Archer et al., 2016, para. 2)

However, most authors espousing a critical realist position hold a certain philosophical position on ontology and epistemology. In this study, the focus will be on the work of Danermark et al. (2005), Fletcher (2017) and Meyer and Lunnary (2013) as they addressed the methodological implications of critical realism in the social sciences. I begin by introducing some key features of critical realism that have relevance for this study.

Reality: A Critical realist view

Critical realists explain that critical realism brings together the constructivist epistemology with the realist ontology (Archer, 1995, pp. 52, 61; Collier, 1994; Joseph, 2001; Scott, 2005). Knowledge is constructed within minds, as described by Piaget in the nineteen-thirties and forties (Burke, 2020), which exist in social contexts, according to Vygotsky (Burke, 2020). Constructivists emphasize a belief that there is a reality out there to be known, but our knowledge of reality is constructed rather than apprehended directly. Our knowledge of reality is fallible since it is socially constructed by social actors and facilitated through our ways of perceiving and interpretations of it, and therefore, any claims made about reality must be questioned and critiqued to reach the best understanding of it (Archer, 1995, p. 177; Collier, 1994, pp. 23, 25; Joseph, 2001; Scott, 2005). Whereas for realists, the emphasis is that the world exists independently of the social actors (Archer, 1995, p. 177; Bhaskar, 2011, p. 78; Collier, 1994, p. 62; Joseph, 2001; Scott, 2005).

Critical realists consider that "ontological theory (statements of being) presupposes an epistemological theory (statements of knowledge of being)" (Scott, 2005, p. 634). Scott further explained that the realist in critical realism is because there are objects in the world, including social objects, which exist with or without the knowledge of the observer or researchers. He further stated:

> Critical realism is "critical" because any attempts at describing and explaining the world are bound to be fallible, and also because those ways of ordering the world, its categorizations and the relationships between them, cannot be justified in any absolute sense, and are always open to critique and their replacement by a different set of categories and relationships" (p. 635).

Many researchers commit an epistemic fallacy according to critical realists. This fallacy, they say, happens when the process of obtaining knowledge about being or what exists (ontology) is replaced with our knowledge of being or how we know things (epistemology) and the fallacy here is said to be epistemological (epistemic fallacy; (Roy Bhaskar, 2011; Collier, 1994, pp. 23, 25). Bhaskar also described epistemic fallacy as being ontological. Here he refers to a stratified reality made of three domains: the empirical, the actual, and the real (This will be explained in the next section). The mistake occurs, Bhaskar explained, when the domain of the real is identified with the domain of the empirical. Bhaskar further explained that the researcher who takes this position is making this error by cutting off most of the reality, and their reality would only exist in what is perceived, experienced, or observed (Bhaskar, 2011; Collier, 1994; Danermark et al., 2005).

Stratified Reality.

Bhaskar (1998b, pp. 175, 188) made an ontological assumption that reality is stratified into three different ontological domains (levels or layers), namely the empirical, the actual, and the real (the causal layer); (Roy Bhaskar, 2008b, pp. 2, 46; Danermark et al., 2005, pp. 20–21).

The first of the three layers of this stratification of reality is called the "empirical domain." This domain is made up of observable or experienced events, outcomes, or phenomena, so a form of understanding is developed about it. The empirical is the domain that positivists focus on and have been criticized for, as they are concerned with regularities of phenomena, reducing reality to what is observed and seeking to find "law-like connections" (Archer et al., 2016; Bhaskar, 1998b, pp. 136–146; Danermark et al., 2005, p. 120; Gorski, 2013).

The second layer is the actual domain. Bhaskar explained that it is in this layer where events and behaviours happen and that these events have an independent existence (all events occur regardless of whether activated, sensed/experienced or not); (Roy Bhaskar, 1998b, p. 16; Danermark et al., 2005, p. 20).

The third domain of reality is of particular relevance to this study. This layer is the real domain (causal domain). This domain is independent of our thought, awareness and even our existences as human beings (Roy Bhaskar, 1998b, p. 16; Danermark et al., 2005, p. 20). Bhaskar (2008b, pp. 35–49) described this layer as containing the various structures (objects) and the generative (causal) mechanisms, which have the potential to result in a change or generate phenomena events happening in the actual domain, which may be experienced or observed in the empirical domain. Critical realists state that structures and mechanisms are real, even if they are not tangible or visible, but they may result in events and produce "tendencies," and it is this that we pursue to understand and explain, even if they do not produce events (Danermark et al., 2005, p. 55; Houston, 2001). Examples of this will be given further in this section.

Not producing an event, critical realists argue, might be due to these mechanisms not having been activated by other events or contexts (Bhaskar, 1998b, pp. 129–130; Danermark et al., 2005, p. 56). Furthermore, once activated, other structures and mechanisms might neutralize their effect, and hence they do not produce events in the actual domain (Danermark et al., 2005, p. 56). Thus, the real domain critical realists is further stratified (Bhaskar, 1975; Mingers, 2000). Examples of these strata in relation to understanding the human experience would be

the physical, chemical, biological, psychological, and social layers (Danermark et al., 2005).

Bhaskar (1998b) further described these stratified domains of reality as overlapping. The domain of the empirical is a subset of the domain of actual, which in turn is a subset of the domain of the real. In Table 1 (Bhaskar, 2008b, pp. 46–47, 2008a, p. xix) and the Venn diagram Figure 2 and Figure *3*, we notice that "mechanisms, events and experiences thus constitute three overlapping domains of reality, viz. the domains of the real, the actual, and the empirical" (Bhaskar, 1975, p. 121, 2008b, pp. 46–47; Mingers, 2004). These overlapping domains clearly show that the empirical and actual domains are nested in the real domain, and therefore, experiences and events are also in the real domain.

Table 1 **Bhaskar's Three Domains: Populating Entities**

	Domain of Real	**Domain of Actual**	**Domain of Empirical**
Mechanisms	**X**		
Events generating the effect of power	**X**	**X**	
Experiences	**X**	**X**	**X**

Source: (Bhaskar, 2008b, pp. 46–47, 2008a, p. xix).

Figure 2 *Bhaskar's Stratified Domains*

The Real Domain

The Actual Domain

The empirical Domain
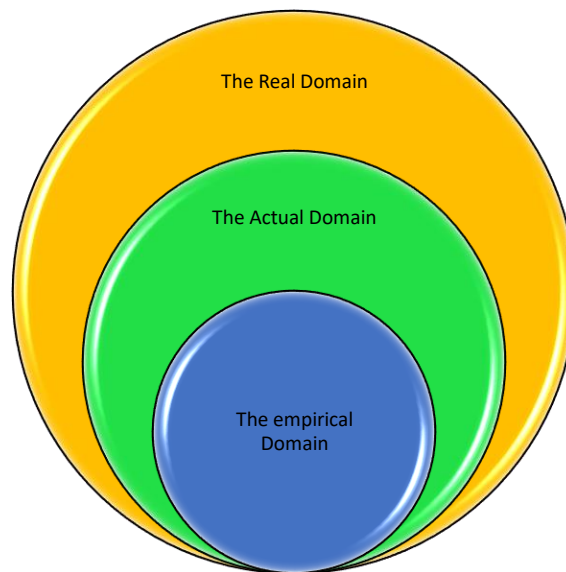
Experiences and events emerge from a range of generative (causal) mechanisms, which condition but do not regulate them. Critical realists argue that reality "has powers or properties which we cannot observe but which we can experience indirectly by their ability to cause—to make things happen in the world" (Danermark et al., 2005, p. 20). This distinction that reality has a generative (causal) mechanism with powers or properties that cannot be observed arises from the notion that not all events are observed and that we should not reduce the lasting effect of a causal mechanism to events (Archer et al., 1998, p. 228).

Bhaskar (2008b, p. 42) described the generative mechanism as:

nothing other than a way of acting of a thing. It endures, and under appropriate circumstances is exercised, as long as the properties that account for it persist. Laws then are neither empirical statements (statements about experiences) nor statements about events. Rather they are statements about the ways of acting of independently existing and transfactually active things." (p. 42)

Bhaskar, in debate with Callinicos (Bhaskar & Callinicos, 2003, p. 103), used the example of an apple falling off the tree as an event that is happening (the actual domain). Bhaskar further explained that the apple falling might be observed or not by us in the actual domain and when we experience and observe it, and the apple now has fallen to the ground from a tree, he stated to be in the empirical domain (Roy Bhaskar & Callinicos, 2003). This event could not be possible without conditions in the world that made it happen, which Bhaskar calls structures and mechanisms. One underlying condition could be that the planet Earth produces a force to pull the apple to the ground. Another condition will influence the apple to grow and age, leading to the weakening of the stem linking the apple to the branch. The interacting mechanisms are produced by the stated conditions, which influences whether this event will happen or not. Critical realist illustrates this apple example to show how a researcher uses theories to try to explain the event by asking what mechanisms may have led to this event and what conditions must exist to produce those mechanisms (Bhaskar & Callinicos, 2003, p. 103; Danermark et al., 2005, p. 192). This analytical method is claimed to be developed by critical realists and is called "retroduction" (Danermark et al., 2005, pp. 109–110; Elder-Vass, 2010, p. 48; Fletcher, 2017; Lawson, 1997, p. 27). This is a familiar conversation in the domain of behavioral biology when one is trying to offer reasons for an organism to behave in a certain way. One may ask what causes a certain manifestation of, for example, courtship behavior. One could offer explanations in terms of external stimulus circumstances, time of year, hormonal state, or evolutionary imperative. These might all be valid, but different levels of explanation. Retroduction will be further explored later in this chapter.

Critical realists describe the real domain as made up of different strata with objects (which I shall refer to as structures), which hold their own emergent causal powers or properties (Roy Bhaskar, 2008b; Elder-Vass, 2010). According to Elder-Vass (Elder-Vass, 2010), an emergent property is a feature of social structure "that is not possessed by any of the parts individually and that would not be possessed by the full set of parts in the absence of a structuring set of relations between them" (2010, p. 17). Water as an object was used to illustrate this by Elder-Vass. Water properties are different from those of its components (i.e., oxygen molecules and two hydrogen molecules). When oxygen and hydrogen are not bound in a specific way, they will not form water properties. For example, fire cannot be put out with oxygen and hydrogen; critical realism explains that water has emergent properties. Such emergent properties are not haphazard occurring phenomena, as they occur as a set of patterns organized in a specific way depending on the relationship between the different parts of the objects and the sets of conditions. In the social world, these powers/properties operate in an open system (the society).

Special Feature of Social Systems: Open System

The social world involves an open system compared to the natural world, which may operate in a more closed system manner (Danermark et al., 2005, pp. 66–69; Sayer, 2000). For example, in the natural sciences (laboratory), it is desirable to control variables to look closely at event regularities, but this is almost impossible to achieve in the social world.

It is argued by critical realists that there are no constant conjunctions of phenomena (i.e., event regularities) in comparison to a closed system (laboratory) where there are event regularities as the environment and conditions are controlled

(Danermark et al., 2005, pp. 54–58; Sayer, 2000, pp. 121–125). The reason for the lack of event regularities, critical realists argue, is that the underlying causal powers/properties, which are present as mechanisms and structures, interact in contingent ways to produce change at the level of observable events (i.e., the level of the empirical domain; Johnston & Smith, 2010).

It is in the empirical domain, critical realists state, that researchers will find data or facts, which are "theory-impregnated" (Danermark et al., 2005, p. 21), leading to what Bhaskar (1978) called "the epistemic fallacy" (p. 36) where the empiricist researcher will reduce "what is to what we can know" about it (Danermark et al., 2005, p. 21). This collapse of the three stratified layers into one is misleading and erroneous. Researchers, according to Danermark, should "investigate and identify relationships and non-relationships, respectively, between what we experience, what actually happens, and the underlying mechanisms that produce the events in the world" in the real domain (p. 21). Therefore, researchers need to look not only for causal effects related to human activities but also the effects of those that exist independent of human activities.

As mechanisms exist as causal powers of things, in this study, we are looking at the social mechanism, which is about "people's choices and the capacities they derive from group membership" (Pawson & Tilley, 1997, p. 66). In addition, mechanism/s interaction with other mechanisms is facilitated by the complexities of the social world system, such as context and people's theoretical ideas and beliefs. Moreover, such a complex system reduces the possibility of making reliable predictions in social sciences (open system; Collier, 1994, p. 62; Danermark et al., 2005).

Application of Critical Realism to This Study

From the above description of mechanisms thus, it is complex to design a faculty development program and then test which intervention will best fit to develop doctors' for their clinical-educational roles and generalize it to all hospitals in a given city or a country, for example. These complexities may arise because many mechanisms and different conditions might influence its effectiveness in a given time and context.

Another example would be to look at the mechanisms preventing many non-millennial generation doctors (i.e., those born before 1982) from attending voluntarily faculty development activates conducted by the Sultan Qaboos University College of Medicine and Health Sciences (CoMHS) as a personal observation as a member of the faculty development in CoMHS. Such an event (nonattendance) may be explained as a lack of interest in improving and enhancing their clinical-educational roles. Another explanation given by some faculty developers in CoMHS is that those doctors believe they are experts in teaching and know-how to teach as a result of many years of teaching experiences, and therefore, such an activity will not add any value to them. Therefore, those doctors attending such an activity would be a waste of their valuable clinical time, which they do not have much off. Yet another explanation might be that this group of doctors believe that their clinical expertise in their subject area enables them to teach to a high level of excellence, and yet again, attending faculty development activities for teaching and learning will be a waste of their valuable time. However, such an overly simplistic analysis that those doctors experiences in their clinical area and teaching are believed to explain the

nonattendance. Such a belief is erroneous thinking, and those assumptions are based on social system is a closed system.

We might think of the above narrative as having a reality that is stratified and that there might be hidden causal mechanisms and structures leading those doctors not to attend faculty development activities and have the benefit of up-to-date professional development initiatives for their teaching roles different than what has been observed and experienced. Such mechanisms and structures could be related to beliefs, values, cultural ideas, policies, institutional factors, personal factors such as goals and intentions, and/or concerns. It might be as simple as a lack of clear guidelines or policies for the educational roles or a more complex explanation leading to the event of nonattendance. In terms of causal mechanisms to explaining why non-millennial generation doctors choose not to attend faculty development activities would be a complex issue. For example, a lack of clear guidelines or policy for attending faculty development activities might be a simple reason for such an event to occur. However, conditions such as the institutional values might not match those of the doctors for teaching roles with the lack of guidelines and policy lead to this event in a context that did not recognize clinical teachers, for example. Therefore, we must always ask ourselves, "What mechanisms or structures may have led to this event?" and "What conditions must have existed to produce those mechanisms?"

Another example one might look at is observing the collaboration between doctors in the clinical setting in their teaching roles. Those doctors working as a team member and this experience critical realist consider to be in the empirical level, which might also be considered a mechanism at the real level. Such a mechanism

may trigger a number of other mechanisms relevant to the doctors' educational roles, such as being creative in their teaching roles. Another mechanism would be a lack of trust between team members, and if such a belief is missing, then team members lose confidence in that everyone is sharing the same set of goals. When missing, such a belief leads to miscommunication and misunderstanding, which may undermine the team's efforts. The triggering of these mechanisms is not predetermined, neither its outcomes are known.

Nevertheless, it may depend on other active mechanisms. However, team working has the tendency to produce certain desirable outcomes. For instance, participation in professional development activities and sharing concerns and experiences with each other leads to collaboration between doctors to improve teachers' teaching skills; however, this is not always the case (Bygstad & Munkvold, 2011). Using a critical realist lens, we can determine the causal mechanisms in action that drive doctors to commit to teaching and improving their teaching practices in the clinical setting. Once we explore and identify those structures and mechanisms at the level of the real, critical realists claim that we can bring about change (Roy Bhaskar, 2008a, p. 71).

This claim is essential for exploration. I propose that the emergence of events at the actual level and experiences and observations at the empirical level will help illuminate our understanding of the causal mechanisms at the real level (Figure 3).

Figure 3 Bhaskar's Three Domains

Real	**Mechanisms & structures with enduring properties- causal powers**	• Material conditions impacting the teaching (e.g. roles, institutions, hierarchies, policies, systems of funding, human resource allocations, curricular structures) • Cultural registers impacting the teaching (e.g. ideas, ideologies, discourses, theories, values or beliefs often held within academic/medical communities or networks) • The medical teacher's reflexivity and autonomy (e.g. goals, intentions, concerns, interests, desires, decision-making). The roles of corporate agency operating within communities of practice in hospital /Ministry of Health/universities. • "The reader is invited to consider their own addtitional element(s)
Actual	**Events that are generated by the mechanisms**	• Doctors teaching • Students performance • The role of the medical school and the PG training body (OMSB) in rules and regulation in regards to clinical teaching • A move to a North American curricula especial in the PG • "The reader is invited to consider their own addtitional element(s)
Empirical	**Events actually perceived (observed/ experienced)**	• The opportunities that medical teachers embrace and the challenges that they encounter in their clinical educational roles • Investment in training • "The reader is invited to consider their own addtitional element(s)

This study does not intend to say that if two events occur in sequence regularly, then one is said to explain the other. Thus, for example, when we state that some teachers do not attend faculty development activities because they do not have time and are working in a busy hospital as this constant conjunction of elements or variables is not a causal explanation, and it does not answer the questions: (a) What mechanisms may have led to this event? and (2) What conditions must exist to produce those mechanisms?

Trying to understand what works, how and why it works, I use a critical realist view to explore those deeper lying mechanisms and structures (the causal powers) taken to cause empirical phenomena and analyse the interplay between the three layers of reality (Sayer, 1992, p. 237).

3.2 Methods

Research Design

The main principle guiding the research design was based on the core research question and its sub-questions and focused on generating appropriate data to answer them. The decisions I took when selecting the study participants and data collection methods were driven by factors such as the wider representativeness of the medical specialties, institutions, and the knowledge base of the educational roles within them and more pragmatic elements such as access to busy clinicians. The final design outcome has resulted from a combination of academic requirements, ethical approval requirements and everyday life contingencies. The validity of this design will be, in part, proved or disproved by how well the research aim was achieved. In addition, there is an awareness that practical constraints may have impacted the final decision made regarding the design.

Research Design Outline.

Twenty-seven informants were interviewed once using semi-structured in-depth interviews. The interviews were conducted within two governmental/national hospitals out of the six government hospitals in Muscat Governorate, one belonging to the Ministry of Health and the other belongings to the Sultan Qaboos University. I chose the two hospitals from which data could be drawn to provide insight into the research questions. In each hospital, informants with similar roles and specialties were interviewed: senior consultant or consultant involved in teaching the undergraduate student and/or postgraduate students/residents. In addition, data were collected using documents (see Section 3.2. Research Methods.

The two hospitals were selected based on being similar enough to bear relation to each other in terms of analysis as they are similar but different enough to obtain a broad range of findings. The two hospitals are similar in that they are both depending on receiving their source of income from the government, have similar medical, surgical, emergency specialties, teaching both medical students and nursing students, and both teaching and training junior medical doctors to specialize. However, they are different in that one was established to have a primary purpose as a service provider (MoHH), and the other (SQUH) has its primary function to provide a service to teach. Hence the pressure on clinicians is less in providing clinical services.

This purposive and convenience sampling was also contingent on access to respondents. Each of these hospitals had an individual via whom I could contact potential respondents, and initially, I was introduced to them by their contact. After that, I conducted all communications with the respondents to establish a good rapport

from the outset. In addition, good rapport had been established with some of the respondents from my previous job as the director of training and scholarship in the Ministry of Health and as an affiliated member in the Medical Education and Informatics Department (MEIU) in The Sultan Qaboos University College of Medicine and Health Sciences (CoMHS).

A key principle of sound research design was to obtain data from similar respondents across different but similar hospitals to help both understand their educational roles and any comparative analysis between the clinical settings. These respondents had been particularly selected for their specialized knowledge, expertise and teaching experiences and their ability to give confident and detailed information about their educational roles in such settings. However, I had limited time to collect data from the respondents. I travelled to Oman in May 2016 to follow up in person on the ethical approval, which took longer than anticipated via email. This delay was due to changes in the ethical approval methods and processes in the Ministry of Health. The ethical approval was granted and I started data collection in my home country.

They were all in demanding specialties with time pressures, and their participation was therefore of significant importance. Anyone who refused an interview or withdrew from the study at short notice would have been a significant limitation on the data about that particular hospital. All informants agreed to contribute to this study at the first instance when I contacted them. Such a response rate showed that the study topic was important for the doctor's concern and showed a sense of trust to share their experiences and views with me in the interview. All

respondents of this study shared this view before and after the interview was conducted.

In summary, the design of this research was based on purposive and convenience sampling using 27 similar respondents and from related documents to identify causation's processes and mechanisms to ensure that the research question is meaningful and rich data are generated rather than generalizability of the research.

Research Method

The data collection from respondents needed to be robust, and this was accomplished in several methods. These included interviewing those who hold the consultant title and above to ensure that they are recognized as educators with adequate knowledge regarding clinical teaching, ensuring they had both undergraduate and postgraduate teaching experiences. In addition, it was based in the clinical setting. Subsequently, the data were analysed in a number of methodological stages for meaning-making and rational interpretations that may provide a new understanding of the issues at hand. Finally, I will present an account of the research method (outlined below) divided into three parts: Data collection strategies, approach to data analysis, and the research's credibility.

Data Collection Strategies.

Data were collected via semi-structured interviews using a set of open-ended questions with medical doctors that teach in clinical settings. The study further involved examining several relevant institutional documents to understand the complex interplay between the teaching doctors, the educational institutions they teach for, and their hospitals. These documents are the trainers manual, policy, and

regulations documents from MoH and OMSB to see if they explain what the senior doctors shared with me.

Before developing the set of interview guides, I committed time for desktop research to gain a deeper understating of the application of the critical realist framework and the relevant literature to provide the needed guidance to make the most of the respondents' individualized experiences and the possibility of making sense of the culture that they come from by meaning-making of the collective experiences(Gubrium et al., 2012).

Sampling Strategies.

The purposeful sampling method was used to select respondents who were most likely to provide the richest information about their clinical-educational roles (Cohen et al., 2011, pp. 103–104; Creswell & Creswell, 2018, p. 262). Medical doctors are defined here as physicians who directly supervised medical students and/or trainee doctors in the clinical environment. For example, these doctors might teach both medical students and residents who are on clinical rotations for their individual training programs with primary learning goals relating to patient care. Therefore, criterion sampling was first used to select participants who met the prespecified criteria. Such criteria (Table 2) were as follows: (1) that they had to be practicing physicians in the particular hospital and (2) that they were teaching medical students and/or trainee doctors at various levels of training in that hospital. In addition, those physicians have been recognized as educators by the Sultan Qaboos University College of Medicine and Health Sciences (CoMHS) and/or Oman Medical specialty Board (OMSB), respectively (Cohen et al., 2011, p. 143; Creswell & Creswell, 2018, p. 224).

Purposive sampling was then used to select additional individuals who could contribute new and varying perspectives on the ability to deal with challenges in their clinical, educational roles (Cohen et al., 2011, pp. 103–104; Creswell & Creswell, 2018, p. 262). For instance Table 2, I anticipated that medical doctors of different gender, specialties (surgery versus cardiology, for example), clinical settings (intensive care unit versus outpatient clinic for example), clinical and teaching experiences, formal training in medical education (certificate, diploma, or master degrees), ethnic background or with overseas training, might have different strategies for improving their teaching practice. Therefore, hospital directors and program directors from both hospitals, the Sultan Qaboos University College of Medicine and Health Sciences (CoMHS) and the Sultan Qaboos University College of Medicine and Health Sciences (OMSB), were approached to help identify suitable participants. Once suitable had doctors been identified, they were invited to participate in the study by email and then WhatsApp messages to ensure that they received the email.

The interviews were conducted during two visits I made to Oman. The first interviews were with the medical doctors of SQUH, and on the second visit, it was with the Royal Hospital medical doctors. However, because of the rotational nature of the medical curriculum, it was unlikely that I would have been able to identify an ideal time—from any perspective of workload or availability—for these colleagues, and thus that no time would really be significantly better or worse. Also, the two periods were not greatly separated in time or demarcated by any apparent changes in practice that might be anticipated to have a significant impact on the result of this study.

Table 2 Criteria for Selection of Respondents

Inclusion Criteria		Exclusion Criteria
Criterion Sampling	Purposive Sampling	Any physician with no board certification[2]
Practicing physician in the particular hospital	Gender	
Teaching medical students and/or trainee doctors at various levels of training in that hospital	Specialties (surgery versus cardiology, for example)	
Recognized as educators by the Sultan Qaboos University College of Medicine and Health Sciences (CoMHS) and/or Oman Medical specialty Board (OMSB)	Clinical settings (intensive care unit versus outpatient clinic, for example)	
	Clinical experiences	
	teaching experiences	
	formal training in medical education (Certificate, diploma, or master degrees)	
	ethnic background	
	with overseas training, might have different strategies for improving their teaching practice	

Twenty-seven respondents (medical doctors) who met the sampling criteria were invited to participate in the interviews (Table 3). Eleven respondents were from SQUH and sixteen from MoH. However, the sufficient number of participants for the interview is relative to the data collected and largely depends on the point of reaching saturation, where no new information was gained (Creswell & Creswell, 2018, p. 262; Creswell & Plano Clark, 2018, p. 270; Maxwell, 2012, p. 95; Saunders

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[2] Board certification indicated the education level achieved by physicians beyond their undergraduate certification as medical doctors and as a minimal standard of required core competencies in their chosen specialty.

et al., 2018). Therefore, I first has selected a manageable number of participants from both institutions, and all were interviewed. However, at SQUH, I found that I was approaching saturation as I came to the end of my planned interviews. On the other hand, at MoHH, I had to select additional participants to reach saturation.

Table 3 Respondent Demographics

Gender	(22) male	(5) female				
	(10) SQUH (12) MoHH	(1) SQUH (4) MoHH				

Clinical experiences	**< 5 years**	**5–10 years**	**11–15 years**	**> 15 years**		
	0	1	7	19		
	(0) SQUH (0) MoHH	(1) SQUH (0) MoHH	(2) SQUH (5) MoHH	(8) SQUH (11) MoHH		

Teaching experiences	**< 5 years**	**5–10 years**	**11–15 years**	**> 15 years**		
	0	**13**	**7**	**7**		
	(0) SQUH (0) MoHH	(5) SQUH (8) MoHH	(3) SQUH (4) MoHH	(3) SQUH (4) MoHH		

Specialty	**Medical**	**Surgical**	**Anesthesia & Intensive Care Medicine**	**Emergency Medicine**	**Pediatric**	**Radiology**
	(3) SQUH (4) MoHH	(2) SQUH (3) MoHH	(0) SQUH (2) MoHH	(3) SQUH (1) MoHH	(3) SQUH (4) MoHH	(0) SQUH (2) MoHH

Studying and training country/ region	**Oman**	**India & Pakistan**	**Egypt**	**Canada**	**UK & EU countries**	**Australia**
Under graduate medical study	(8) SQUH (12) MoHH	(2) SQUH (2) MoHH	(1) SQUH (0) MoHH	(0) SQUH (0) MoHH	(0) SQUH (2) MoHH	(0) SQUH (0) MoHH
Postgraduate residency training	(1) SQUH (3) MoHH	(2) SQUH (2) MoHH	(1) SQUH (0) MoHH	(6) SQUH (6) MoHH	(1) SQUH (4) MoHH	(0) SQUH (0) MoHH

Semi-Structured Interviews.

The semi-structured interview guide (Appendix 1) was piloted before the study was carried out. The pilot study was carried out in a setting that was deemed similar to the settings that my main study interviews were likely to occur. Piloting helps in ensuring that research instruments are well functioning. Also, by piloting the interview, I gain experience and confidence in conducting interviews. It helps refine my instrument by recognizing the understood and confusing questions (Bryman, 2016).

Pilot semi-structured interviews were conducted with two respondents from SQUH, as they were the most immediately accessible, using the same conditions as the actual interviews. The main aim of this pilot study was to improve the interview design and the interview guide. The two respondents were selected in the same way as in the actual study, and I communicated with them similarly (see below). This selection method was important to ensure that the methods used for selection gave me the appropriate respondents for this study. The interview was conducted at SQUH in the respondents' selected environment. The two respondents were included in the main study as no changes were made to the interview guide (Appendix 1) or the selection criteria.

The semi-structured interview guide (Appendix 1) included eight main questions in Table 4, informed by the research question and sub-questions. This list of questions represented essentially a number of prompts about issues that were to be covered. Sometimes there would be a slight varying of the order if respondents' answers led on to include issues to be raised by later questions, and so on. In

addition, the guide encompassed the roles and responsibilities of respondents' and whether those roles and teaching responsibilities had been changed over time.

Initially, I contacted each respondent with the assistant of the office of the director of each hospital. In addition, the head of MEIU helped me to get the contact details of SQUH doctors. The directors of the two hospitals' offices and the head of MEIU provided me with their contact details to facilitate easy and quick communication with the doctors. After that, each respondent was contacted via mobile phones or WhatsApp messages to confirm their acceptance to be interviewed and get their email address to send them the information about the research prior to the interview (Appendix 2). WhatsApp messaging was the common medium of communication among the doctors and the community in Oman, and the use of such an application made most doctors respond quickly to WhatsApp messages in their own convenient time with short and quick messages not taking too much of their time.

Moreover, doctors provided me with their email addresses, which ensured that respondents were informed about the purpose of the research and the time needed for their involvement. This approach secured the involvement of the doctors that I communicated with once they read the copy of the research information sheet and consent form (Appendix 3), which were sent to all respondents via email. As a result, the respondent agreed and fixed an appointment for the interview either after receiving the WhatsApp messages and prior to sending them an electronic copy of the information sheet and the consent form or after they received them via email.

All interviews were conducted at the hospital premises in the doctors' offices or an office in their clinic. The interview location was chosen for the doctors'

convenience and de-emphasized other working relationships they might have with me. The interviews were all individual and were carried out by me. Interviews lasted for around 35–90 minutes, and a couple of times, they were interrupted by phone calls or by individuals opening the door, which did not affect the dynamic of the interview process as the respondents continued discussing the point before the interruption.

Table 4 *Semi-structure Interview Main Questions*

1. Could you please tell me about your current role as a clinical educator that you have been doing now for X years? Could you please tell me what you do in this role?

2. Could you please tell me whether you had any thoughts about clinical teaching whilst you were a student or resident?

3. What preparation, if any, have you had for your clinical-educational role?

4. If you have not been prepared, why do you think this might be?

5. If you have been prepared—has anyone helped you with this?

6. If you have not had any help—would you like some?

7. If you were to be involved in a project to help other medical teachers in a similar situation as yourself with challenges in their role, what support, help or training do you think you would need to do this?

8. Do you have anything else you would like to say or share with me on the subject we have been talking about?

Consent was obtained on the same day of the interview from the respondent, asking them to participate, be interviewed, and be audio recorded for this study.

Following transcription of the interview, audio recording a copy of the transcript was sent to each respondent via email (Appendix 4). This gives the respondent an opportunity to clarify information, correct mistakes (Hagens et al., 2009). The email also clearly stated that the transcript will be considered a true representative of what they have said to me if they do not reply. As a researcher, I was aware that their nonresponse to my email does not mean they approved the transcripts, and their lack of reply might be due to their busy professional life (Forbat & Henderson, 2005; Hall, 2004).

All the interviews were anonymized by giving letters and numbers to each respondent. However, the place that participants have come from have not been anonymized, as this might be important data for my study (Moore, 2012). The first seven interviews were transcribed verbatim to gain the experiences of transcribing. The rest were transcribed verbatim using a transcription company (Appendix 4 provides an example of a transcribed interview). This part of the research was done in a process way to get the most of meaning-making that will help with the data analysis. This process was as follow: (1) the audio recording was listened to on the same day with added notes to the original notes that were made during the interview, (2) the audio recording was transcribed, (3) the recording was listened to again with the intention to correct any misunderstood words by me or the transcription company or for when Arabic words were used during the interviews. I found transcription time consuming, especially since I conducted the interviews in English with English as a second language for both myself and the respondents.

From the onset of the research design, a decision was made to conduct the interviews in English. I was aware that the respondents and I have the same non-

English native language, and the non-English data will lead to an English thesis. Knowing that some of the respondents will be non-Arabic speaking meant that I had to conduct some in English and most in Arabic, which would have added another element of interpretation. To eliminate translation challenges from the viewpoint that interpretation of meaning is fundamental in qualitative research, which might reduce the study's validity by losing meaning (van Nes et al., 2010), English was decided to be the language for all the interviews. Translation being itself an interpretive action, and therefore, meaning may get lost in the process. As the researcher was thinking of the analysis process using a critical realist framework with reality being stratified and interpretation of experiences are an essential aspect of the first stage of this analysis, it was necessary to reduce the 'errors' that translation might cause initially. Therefore, to avoid any limitation that might be caused by translation, I decided to conduct the interview in English to give the respondents the opportunity to say things in their mother tongue if they feel they needed to do so (van Nes et al., 2010). For meaning-making, I listened again to the interview audio recordings because the tone of voice and the volume used changes the meaning of what was transcribed.

Qualitative analysis was conducted using NVivo 12 software. The audio files and the transcripts were only used for this study as part of the dissertation process. Anonymized extracts from the transcripts of the recorded interviews were used when reporting the findings. When grammatical errors were corrected, I used brackets [ ] to improve readability. The raw data for this study were accessed only by me and my dissertation supervisors.

Ethical Considerations.

This research dealt with people's interpersonal interactions and their beliefs and behaviours, and therefore, it had an ethical dimension, and I was required to consider ethical implications (Bryman, 2016; Cohen et al., 2011). Therefore, additional formal ethical approval was obtained. The following ethical considerations were relevant to this research and were addressed: harm to respondents, informed consent, privacy (Bryman, 2016; Cohen et al., 2011).

An ethical approval form was completed and submitted to the Moray House School of Education Ethics Committee for this study. This study was considered level 1 in its screening process and did not require further consideration by the formal ethics committee (Appendix 5). This approval was a requirement for the Research and Ethical Committee at the Ministry of Health in Oman before I considered applying to conduct the research at MoH institutions. Ethical approval was obtained from the Research and Ethical Committee at the Ministry of Health in Oman (Appendix 6) and Sultan Qaboos University Medical Research and Ethics Committee (Appendix 7). An application form for Ethical Approval of Research was filed, providing information about the principal investigator, the research title and description of the research, its significance, methods, respondents, ethical research issues, source of funding, and conflict of interest.

The data collection methods should cause no harm to the individual respondent, and they were asked to voluntarily participate in the study. Information (Appendix 2) about the study was provided to the respondent prior to interviews and on the day of the interview to ensure that the respondent was aware of this study's

purpose at all times. In addition, respondents had the option to withdraw permission from me to use the interview material in the study report.

This study sought to ensure the respondents' confidentiality and security of their personal information and records (UK Research Integrity Office, 2009). Therefore, confidentiality was maintained during and after the study has finished. Confidentiality was maintained by concealing the identity of respondents through the use of pseudonyms. An informed consent form was developed, and consent was obtained from all the respondents in this study (Appendix 3). The form stated that the respondents are guaranteed certain rights, agree to be involved in the study, and acknowledge that their rights are protected. Respondents will be provided with feedback concerning the study results at the end of the study, and all names are kept confidential. Consent forms, interviews' digital recordings, and the interview transcriptions have been securely stored in a locked filing cabinet and will be destroyed on the study's completion and reporting. Digital files and recordings containing respondents' research data were stored in password-protected files on University maintained servers with regular and secured backup according to the Data Protection Act (UK Legislation, 2018) and the University of Edinburgh Data Protection Policy (University of Edinburgh, 2021). Sensitive data were also encrypted, stored, and securely erased when appropriate.

The study involved interviewing people working in the same institution or affiliated institution as I do, thus raising concerns associated with existing professional relationships between respondents and me. Respondents might feel pressured to consent due to professional connections with me; therefore, to eliminate this risk, voluntary consent was obtained via private email invitations to the

respondents in this study rather than face-to-face requests. Informed consent was obtained from volunteering respondents via a Participants' Information Sheet & Consent Form (Appendix 2 & 3) describing what will be involved in the research, time commitment, rights of respondents and the benefit and risk of participating in this research. Respondents were assured that confidentiality and anonymity would be protected.

The Data Analysis Method

This section of the chapter explores the data analysis methods employed in the study, which is not necessarily linear; however, critical realism implies several key steps (Danermark et al., 2005, pp. 109–111; Fletcher, 2017). The lack of clearly described methods for applying critical realism in the field of social sciences (Edwards et al., 2014; Fletcher, 2017; Oliver, 2012) made this study go through a number of trials and errors to what will be considered an acceptable method and analysis. The publication of an article by Fletcher (2017) in which she outlined the method of applying critical realism in a simple and clear way assisted me in my analysis. In this study, I used Fletcher (2017) three stages of the explanatory research model, based on critical realism, which will be applied to find mechanisms and structures with enduring powers (Danermark et al., 2005; Fletcher, 2017). This model is expected to provide a greater understanding of the causal mechanisms that motivate clinical educators to commit to improving their teaching practice in clinical setting roles.

However, the process of data analysis and going back to the raw data will be an ongoing process throughout all the stages of the research (Cousin, 2009). The stages generally will be in sequence, but at times there will be an overlap, or even in

some stages, going back to earlier stages to re-examine or revisit certain aspects of the analysis for a close look and revisions. Table 5 summarizes the data analysis process below.

The three stages of the explanatory research model are:

Stage 1: Identification of Demi-Regularities or Patterns

In Stage 1, the analysis started with the inductive stage, which involved describing the "everyday concept" through "interpretations of persons involved" and "their way of describing the current situation" (Danermark et al., 2005, p. 109). All digitally recorded interviews of respondents' experiences in the two hospitals were transcribed for this study, and all information about the contexts was described. This transcription and description of the interviews involved the first descriptive coding of respondents' interpretations and experiences of their roles as clinical educators and how they embraced the opportunities and dealt with challenges in their clinical-educational roles. I made memos immediately after the interview about my interview experience, which was used when I needed to cross-reference with any comments given through the interviews. I then listened to the digital recording and further took notes of my thoughts and impressions of what I heard for the first time, keeping in mind my research questions when listening to the recordings.

The lack of data analysis examples using a critical realist approach made coding very challenging for me. In addition, most of the literature that described Danermark et al. (2005, pp. 108–111) six stages of analysis were very vague in their explanation. I knew this stage is the foundation for all the following stages, and therefore, I was directed toward a grounded theory approach that I thought did not match my understanding of critical realist analysis. The empirical literature on

critical realism is directed toward engaging with theories (fallible they might be) at this early analytical stage to learn the best interpretation of reality (Fletcher, 2017). In contrast, grounded theory tries to avoid those theories at the early stages of analysis (Fletcher, 2017). In addition, critical realists use abduction and retroduction processes for inference, whereas grounded theory uses inductive processes (Fletcher, 2017).

Therefore, I used Fletcher's (2017) method of data analysis as I find it the most appropriate and close to how I think a critical realist analysis should be. The initial coding will be based on a preliminary list of codes inspired by the related concepts and theories from the literature about what factors motivate doctors in their commitment to improving their teaching practice in clinical settings in Oman. Through such a way, I explores those deeper lying mechanisms and structures taken to cause empirical phenomena and analyse the interplay between the three layers of reality (Sayer, 1992, p. 237). I will be aiming at a theoretical description of mechanisms and structures to explain events. Therefore, I will explore by theorizing how an observed event has happened (real domain; Bygstad & Munkvold, 2011).

The NVivo 12 software was used to help with data coding and storing. Coding will begin with provisional codes (Maxwell, 2012, p. 111; Saldaña, 2015, p. 266), which is based on the literature review done in this study. Furthermore, those professional coding are grouped into three categories or topics described by Maxwell (2012, pp. 111–112): organizational, substantive and theoretical Appendix 8. Furthermore, the interviews will be coded into these categories using the professional codes as a starting point.

This categorization is important for the sorting of the descriptive data. Topic-based information, such as policy, roles, alternative, and consequences, are sorted as organizational codes. I will be using them as organizational tools (Maxwell, 2012, pp. 111–112). However, descriptions of respondents' beliefs and understandings are sorted as substantive, such as "lack of policy," "the policy is unfair," "roles are not specified," and "vague roles." These codes are usually established inductively, and they can be used to develop a general theory of the phenomena. Finally, codes derived from prior theory or inductively established theory are sorted under theoretical codes and usually indicate my thoughts (Maxwell, 2012, pp. 111–112). These may be used as subcategories of the organizational categories.

During this first stage of analysis, codes might be added, and provisional codes might be changed or deleted as required throughout the coding process. This process ensures that preconceptions of what to expect do not cloud what is really happening (Saldaña, 2015, pp. 266–267). This process might lead to an increase in the number of codes.

Next, further analysis was done to condense the meaning of interpretations that are made. Both inductive and deductive approaches will be used in this stage to identify analytical elements (Danermark et al., 2005, p. 108). In this second coding cycle, the codes will be reduced and reorganized and combined into a conceptual map informed by critical realism. New codes will be created in which existing organizational or theoretical codes will be recoded into them to identify some possible themes at play (Carter & New, 2004). In addition, NVivo will be used to identify dominant codes (i.e., the most commonly coded) and connections between codes. The most dominant codes will be used to identify demi-regularities (what

positivists call regularities), a term used by Tony Lawson (1997, p. 200) described below.

Critical realist methodology starts the proposition that the social world is complex and open. Moreover, critical realists say that the social world is organized in a way that gives rise to what Lawson (1997) has characterized as demi-regularities at the empirical level. Lawson described this demi-regularity as "partial event regularity" (p. 200) because some factors shine and become observed or experienced. However, he also stated that one finds "enduring and identifiable tendencies in play" whenever those demi-regularities appear (Lawson, 1997, p. 200). Moreover, when "regularity seems not to be accidental", (1997, p. 6) suggested the idea of looking for the demi-regularity. He suggests looking for a semi-predictable pattern in which he claimed "that human choice or agency reveals in a semi-predictable manner—"semi" because variation in the pattern of behaviour all can be attributed partly to contextual differences from one sitting to another" (Lawson, 1997, pp. 6, 28).

I anticipated that my data coding and recoding would be influenced by my own experiences, the experiences of my supervisors and the literature available to me. Furthermore, in this stage, I will be looking to identify mechanisms and structures that explain the finding of this study. This explanation will be done through the theoretical perspective, which can be achieved through the remaining stages (Danermark et al., 2005, pp. 108–111).

Stage 2: Theoretical Redescription

Abduction involves viewing the analytic elements identified in the previous stage by identifying different theoretical perspectives, interpretations and explanations (Danermark et al., 2005, pp. 108–111). The main purpose of this stage

is to offer an explanation beyond the initial theoretical idea of the structures, mechanisms and conditions underpinning factors motivating doctors in their commitment to improving their teaching practice in clinical settings.

Through coding in the previous stages, demi-regularities (main empirical findings) will be identified, and a surprising empirical finding will initiate the process of abduction (theoretical redescription; Decoteau, 2016). Here empirical data will be redescribed using theoretical concepts (Fletcher, 2017), which Bertilsson (2004) said "comes to us like a flash. It is an act of insight, although of extremely fallible insight" (p. 371).

Another way to look at "abduction is [as] a process of an "inference or thought operation, implying that a particular phenomenon or event is interpreted from a set of general ideas or concepts" (Danermark et al., 2005, p. 205). Abduction goes beyond simply explaining empirical objects or entities, showing how something might be using theories, and recognizing that these theories might be fallible (Fletcher, 2017). For example, one can explain that doctors who teach in clinical settings are motivated internally or externally and therefore choosing to teach and deal with the challenges as they arise and take any opportunity that comes their way to improve their teaching roles. However, such a simplistic explanation would be an epistemic fallacy explained at the beginning of this chapter. Critical realists would consider such an explanation a fallacy as deeper causal mechanisms and conditions have not been considered. This study will use abduction to infer the best explanation of the findings.

Stage 3: Identification of Causal Mechanisms and Conditions

Retroduction is the final stage of inference by which critical realists identify the generative mechanisms, their causal powers and conditions of one's finding. In addition, it looks at the context that allows such mechanisms to operate, causing the events. To achieve this, I need to work back from research findings, and it involves asking, "What is fundamentally constitutive for the structures and relations (X), highlighted in stage 2? How is X possible? What properties must exist for X to be what X is? What causal mechanisms are related to X?" (Danermark et al., 2005, p. 110) and to explain how X produced Y (Sayer, 1992, p. 107). Lawson (1997, p. 43) calls it "as if" reasoning," drawing on my perception, beliefs and experience.

Bhaskar (1998a, p. xviii) argued that "theoretical explanation proceeds by description of significant features, retroduction to possible causes, elimination of alternatives and identification of the generative mechanism or causal structure at work." He further stated that retroduction moves from "the manifest phenomena of social life, as conceptualized in the experience of the social agents concerned, to essential relations that necessitate them" (Bhaskar, 1998a, p. 207).

One assesses the relative explanatory power of different mechanisms and their structures that will be described by abduction and retroduction. It is now that the redefinition of the literature review chapter occurs and further influences the discussion and conclusion chapters. For example, this might be done by favouring one theory over another or rejecting theories as an explanation of power at play (Danermark et al., 2005, p. 110).

Critical realists try to generalize from theory to the concrete. This process involves studying how an identified mechanism might interact and act with other mechanisms at different levels, conditions and contexts.

Table 5 **Summary of the Data Analysis Process**

Main & Subsidiary research question	Methodology (CR domains)	Methods	Interview questions	Analysis (3 Stages) Danermark et al.'s (2002) stages of critical realist analysis
Sub: What are medical teachers' clinical-educational roles?	The empirical	Semi-structured interview with the clinical teachers (Chapter 3)	(1) I understand that you have been doing your clinical-educational role (recently / X numbers of years)—Can you please tell me what do you do?	**Stage 1** Identification of demi-regularities or patterns (1) Describing the concrete data and context (Transcribing & Coding of data) and evolving the descriptive codes into analytic codes—creating a coding frame and categorical hierarchies
	The actual	Document review (policy document, relevant minutes of meetings, students' evaluation of teachers; the literature) (Chapter 2 & 4)		
Sub: What challenges do medical teachers encounter in relation to their clinical educational roles?	The empirical	Semi-structured interview with the clinical teachers (Chapter 3)	(3) Have you been prepared for your clinical-educational role?	**Stage 1** Identification of demi-regularities or patterns (1) Describing the concrete data and context (Transcribing & Coding of data) and evolving the descriptive codes into analytic codes—creating a coding frame and categorical hierarchies
	The actual	Document review (policy document, relevant minutes of meetings, students' evaluation of teachers; the literature) (Chapter 2 & 4)		
Sub: What influences the clinical teachers' ability to deal with	The real	Literature review (Chapter 2)	(2) Can you please tell me whether you have had any thoughts about clinical teaching	**Stage 2 & 3:** Theoretical redescription and identification of causal mechanisms and conditions (Abduction and retroduction)

Main & Subsidiary research question	Methodology (CR domains)	Methods	Interview questions	Analysis (3 Stages) Danermark et al.'s (2002) stages of critical realist analysis
challenges in their clinical educational roles?		Analysis of all the data findings (Chapter 4 and 5)	whilst you were a student or resident?	(2) It involves viewing the analytic elements identified in the previous stage in the contexts of different theoretical perspectives, interpretations and explanations. These aimed to help provide an explanation of structures and relations underpinning the analysed phenomena. (3) The critical realist process of identifying generative mechanisms and their contexts. This identification is achieved by working back from research findings and asking what mechanisms and contexts can possibly account for the phenomena and their structures and relationships, as proposed in the 2nd stage.
Sub: How does faculty development influence clinical teachers' ability to deal with challenges in their clinical educational roles?	The real	Literature review (Chapter 2) Analysis of all the data findings (Chapter 4 and 5)	(3) Have you been prepared for your clinical-educational role? (4) If you have not been prepared, why do you think this might be? (5) If you have been prepared—has anyone helped you with this? (6) If you have not had any help—would you like some? (7) If you were to be involved in a project to help other medical teachers in a similar situation as yourself with challenges in their role, what support, help or	**Stage 2 & 3a:** Theoretical redescription and identification of causal mechanisms and conditions (Abduction and retroduction) (2) It involves viewing the analytic elements identified in the previous stage in the contexts of different theoretical perspectives, interpretations and explanations. These aimed to help provide an explanation of structures and relations underpinning the analysed phenomena. (3a) The critical realist process of identifying generative mechanisms and their contexts. This identification is achieved by working back from research findings and asking what mechanisms and

Main & Subsidiary research question	Methodology (CR domains)	Methods	Interview questions	Analysis (3 Stages) Danermark et al.'s (2002) stages of critical realist analysis
			training do you think you would need to do this?	contexts can possibly account for the phenomena and their structures and relationships, as proposed in the 2nd stage. The evaluation of the relative explanatory power of different mechanisms and their associated structural contexts.
Main: What insight into faculty development can be gained from a critical realist study into the challenges clinical teachers encounter in their clinical educational roles?	The real	Literature review (Chapter 2) Analysis of all the data findings (Chapter 4 and 5)	-	**Stage 3b** Identification of causal mechanisms and conditions (Generalisation from the theory to the concrete) (3b) This involves looking at the specific circumstances in which identified mechanisms might act and interact and how this might give insight into faculty development (Arche's narrative-internal conversation, reflexivity, agency and social identity).

Study Trustworthiness and Limitations

In this section, I will discuss those elements of my work that might be raised as potential threats to the trustworthiness of my conclusions and indicate how I would address such concerns. I begin with the terms most often used; validity and reliability. The validity and the reliability of research are discussed for a long time in the research methods literature (Atkinson et al., 1988; Cohen et al., 2011). Validity is the term used to describe the extent to which a measure is actually tapping into the concept that it is intended to measure. Reliability addresses the issue of consistency of a measure, and the extent to which the measure would tell the same story in different times and settings.

While the terms "validity" and "reliability" are commonly used in quantitative research, or research coming from a positivist tradition, ideas of "quality" and "rigour", or the general term of "trustworthiness" are more commonly used in qualitative research traditions.

I used digital recordings during interviews and checked interview transcripts with participants to confirm that I had correctly reported their words in this research. Further support for the trustworthiness of the present research conclusions is provided by the process of methodological triangulation (Cohen et al., 2005) using existing literature and analysis of available policy documents.

Furthermore, the trustworthiness of this study method addressed the transferability of this study by the detailed description of the study context and time. Therefore, this study Introduction (Chapter 1), Literature Review (Chapter 2), Findings (Chapter 4), and Discussion (Chapter 5) chapters oriented the readers to the uniqueness and the importance of the context and time being studied in this research.

I was aware that my data coding, recoding, interpretations, and reporting of this study findings were influenced by my own experiences, the experiences of my supervisors, and the literature available to me at the time of this study. For example, being a colleague to the participants of this study but not being a medical doctor has its advantages and disadvantages to this study outcome. My working relationship with, and previous knowledge of, these colleagues might potentially influence the way that I interpreted their evidence when such background knowledge might be advantageous, such as understanding the context and making meaning of the information my colleagues shared with me, and aided me in my attempts to draw inferences based upon the critical realist retroduction analytical method to address the questions.

However, I attempted to avoid being influenced when the relationship with my colleague might constitute a distraction or bias. I detached myself from the study participants by continually making myself aware during the research process, especially during the interviews and the analysis.

Even though it was important that I knew the context that my participants were speaking about, I wanted to hear from them and not to allow myself to assume a shared understanding which might not actually exist. I therefore made sure, wherever possible, to take myself out of the interview process. For example, my participants would commonly use phrases such as "you know" when discussing some issue, implying that they were aware that I had direct experience with the topic I was asking about. At that point, I tried to step back and explicitly explain that I wanted to hear their views in their own words. I made sure to ask them to tell me more and to clarify further what they intended to convey by "you know".

In addition, to encourage as much openness and candour on the part of my participants, I informed them that their identity would be protected entirely (Appendix 2). Furthermore, before recording the interviews, I informed them that they would be referred to using pseudonyms such as S2, S10, R11, R6, etc. Hence, I ensured their names would not be used (Appendix 4). I further reassured them before the interview that if they said anything that might identify them or identify anyone they mention, it would be removed. A generic term or a pseudonym was used when their quotes were used. I reassured them that confidentiality and anonymity would be protected by doing the above.

This study was far from having no limitations. One such limitation was having easy access to busy clinicians. However, this limitation was addressed by being introduced to potential respondents with the help of the directors of both hospitals. This introduction presented me as someone with whom it was acceptable to share their experiences, in my role as a researcher. After that, I directly communicated with the respondents to establish a good rapport, especially with some of the respondents with whom I was less familiar.

Another limitation was studying in one country when the data that I needed to collect was in a different country. Findings (Chapter 5) points to some of the challenges regarding accessing some of the senior administrators to comment on the experiences and beliefs that participants of this study have shared with me. The senior administrators' comments would have made some sense to add value to the shared experiences and beliefs. However, my several communication attempts (phone -landline and mobile, WhatsApp's -mobile communication application), and

emails have been unsuccessful. However, this is now a chance for further future investigation.

3.3 Conclusion

This mixed-method study aims to explore the structures, mechanisms, conditions that motivate clinical teachers in Omani hospitals to teach and learn about teaching, using a critical realist framework. Danermark (2005, pp. 109–111) and Fletcher (2017) explanatory research model is used in this study to explore the real layer of Bhaskar's stratified layers of reality. Using this model, one hopes to identify the causes and conditions of one's findings in this study context.

Chapter 4   Findings

This chapter presents an analysis of the data using the critical realist framework described in Chapter 3. The Empirical and Actual domains of critical realist reality are explored to addressing two subsidiary research questions. Chapter Five will go on to explore the Real domain, addressing the main research questions and their subsidiary questions. Five major themes are presented in this chapter: educational identity, influential people, self-enhancement, hierarchy culture and support for teaching (Table 6). Those themes, and where relevant their subthemes are what critical realists calls the demi-regularities or patterns, which investigate how medical doctors teach in the clinical setting, deal with challenges, embrace opportunities, and transform their identities.

Table 6: Findings Themes and Sub themes

Themes	Sub themes
Educational Identity	- Perceived Educational Roles - Importance of Recognition - Absence of Clear or Standard Roles for Medical Educators
Influential People	- The "Good/Better Teacher - Being Altruistic - Inspiration - Passion for Teaching - Giving Back - Sense of Duty - A Legacy That Shapes the Next Generation
Self-Enhancement	-
Hierarchy Culture	- Administration: Hierarchy Culture Is Seen as Challenging - Workplace Well-Being
Support for Teaching	Teaching Institution

The findings will be presented through the lens of critical realism, as laid out in Chapter 2. Methodologically, this present chapter represents the first stage in the critical realist framework alongside the literature review chapter, where I looked at what other researchers observed about the factors motivating clinical doctors to teach in clinical settings. This study's focus was on the respondents' experiences of their educational roles in the clinical setting. Two data sets, the interviews and documents, are used in this chapter. The interviews primarily focused on exploring the senior doctor's account of their educational roles, the opportunities and challenges that came with this role in their current clinical settings. But of course, the interviews also questioned their time before being identified educators officially by two medical education institutions. This historical account of their experiences was necessary since it has a significant bearing on their opportunities and career path upon graduation from medical school. The interviews represent the empirical knowledge that the respondents have of their educational roles. The documents such as OMSB Trainers Manual (Oman Medical Speciality Board, 2014) provide background information and may give meaning to what respondents had perceived, while interviews provide verbal statements of the respondents understanding of their context. These documents and others will be presented later in this chapter as findings related to what the respondents share with me at different points of this finding chapter.

This chapter is the outcome of stage 1 and stage 2 of the explanatory research model discussed in Chapter 3, Section 3.2.. In this chapter, demi-regularities or patterns (stage 1) are discussed, and those demi-regularities are looked at from different theoretical perspectives using abduction (stage 2).

This chapter focuses on two of the three domains of critical realist stratified reality (Figure 2 and Figure *3*) explained in the previous chapter, the empirical and actual domains, followed by the real domain in Chapter 5. In the current study, I considered the respondents' experiences and observations of their educational roles in the clinical setting as being in the empirical domain of what they perceived to be the case. The actual domain of reality is represented as events that have a beginning and an end. In this study, being selected as an educator or a teacher is an event. Structures and mechanisms may be triggered by entities in the real domain of reality that produces these event/s, as has been explored in Chapter 3, Section 3.1. The empirical domain includes the respondents' experiences and their observation of the events about their teaching roles, the perceived challenges and how they deal with them and the opportunities to improve their teaching roles and how they embrace them. The real domain is the domain that I will explore in the next chapter, Chapter 5. The interaction between different entities and their causal powers/tendencies results in the emergence of new entities with new causal powers/tendencies, or the interaction produces transformations of the entities with new powers, capabilities or just reproduces the entities. These powers/tendencies may be exercised or not, and if exercised, they might be actualized or not.

In this chapter and the discussion, conclusion and recommendation chapter, Chapter 5, I focus on establishing the forces driving senior doctors to commit to teaching and improving their teaching practices in clinical settings. The following description of the themes summarizes what the respondents expressed, illustrated by selected quotations. Also, documents are used to either make sense of the respondents' experiences or assumptions. Documents such as policies and

regulations, reports, booklets, manuals and handbooks were examined to find any support or lack of support for respondents' beliefs and observations. Therefore, I cover two of the subsidiary research questions here and additional subsidiary questions in the next chapter:

- o What are the clinical educational roles of medical doctors in Oman?
- o What opportunities and challenges do doctors encounter in relation to their clinical educational roles? How do they meet them?

4.1 Educational Identity

A central theme emerging from the analysis of the interview transcripts concerning the educational roles of doctors in Oman was their educational identity. The educational identity here would be the empirical (perceptions/experiences) of the actual (their teaching roles). Within this theme, there were three subthemes: perceived educational roles, the importance of recognition, and the absence (lack) of clear or standard educational roles for medical doctors. The importance of recognition is a pre-determined theme (Appendix 8) as the literature does identify its importance. However, the way the participants from MoHH perceived educational roles was an emerging theme that corresponded with the discovery of the absence of clear roles. In this study, the doctors perceived their roles in terms of job titles and/or professional activities. The respondent from MoH wanted to be recognized officially as educators not only by the educational institution but also by their own MoH authority. This recognition by officials was highlighted in terms of the lack of clear roles or standards not only by MoH but even by SQUH doctors.

Perceived Educational Roles

As medical educators and senior doctors, all respondents in this study have five years or more of clinical teaching experience. Therefore, they did not hesitate to answer when asked to state what were their educational roles. However, the respondents stated a mixture of job titles, professional activities, positions, roles and responsibilities that have been given to them by educational institutions- The Sultan Qaboos University College of Medicine and Health Sciences (CoMHS) and Oman Medical Specialty Board (OMSB). These responses included "I am a director of the program," I am head of the department," "I am a teacher," "I am a trainer," "I am an official trainer," "I am a doctor," "I am a physician," "I am a consultant," "I am the chair of the scientific committee," "I am a member of the committee" and "I am a supervisor." However, few would state that they are role models, mentors, facilitators, learner assessors, curriculum planners, curriculum evaluators, course organizers, and resource developers. Interestingly, the latter descriptions also carry an element of "relationship"—with peers and students, which all respondents did not regard as being a role.

After talking to them for some time, the respondents stated their roles, which had added value, meaning and understanding of what they are doing as medical educators. For example, S09, who was more involved in junior doctors' training and S03, who was more engaged with undergraduate training, exemplify how they have multiple ways and levels of referring to what they do. S09 and S03 in the below quotations referred to their role being related either to organizational structure, professional activity, and the relationship between peers and students. For example, S09 below showed how he relates to the residents as colleagues. They perform their

daily clinical work with them and make the most of the teaching and learning opportunities that occur in addition to scheduled class teaching. On the other hand, S03 shows below her role as the point of contact for medical students in the SQUH as the rotation, elective, and selective coordinator in her speciality. In addition to her teaching role in the clinical setting, S03 is an active member of many academic committees in the medical college, which she stated made her more aware of the curriculum. S09 said he was

> heavily involved [with the postgraduate program] . . . so we design their rotations, the curriculum and their didactic teaching, so this is in terms of planning. In terms of implementation, we interact with the residents on a daily basis . . . we review the cases with them and do the teaching along with the clinical work. Also, with that, we do didactic sessions.

S03 said:

> Currently, I am the [my specialty] rotation coordinator, Also [specialty] block assistant coordinator, I am also involved in the college [CoMHS] as a member of MCQ subcommittee, examination subcommittee members . . . and you know, like I also attended the examination result meetings for the pass and fails and discuss all the borderline cases. . . . So this is all involved with undergraduate teaching.

The two above quotations are examples of what most respondents from SQUH stated when asked about their educational roles. Those identified roles by those respondents in this study illustrate the involvement of senior doctors in SQUH with the organizational structure of both the medical school or the Oman Medical Specialty Board. In contrast to MoH respondents, they are only involved in the organizational structure of OMSB. This study respondents also clearly demonstrated that their professional activities changed at different stages of their medical careers.

For example, some respondents clarified that their leadership positions change because the position is rotational in which the respondents take turns in doing the job, and they always go back to their original job of being a service provider and a teacher. Another role that the respondents mentioned throughout the interviews was their relationship with colleagues and their learners. With their learners, they identify themselves as being mentors to their junior doctors, for example. They also considered themselves as being role models for all their learners and even for their colleagues. Some respondents also saw their role as change initiators. As the change being referred to is necessarily and desirable, they started the adjustment by changing their behaviour first, and by doing that, they say that others, colleagues and learners, might follow in their footsteps. Such changes the respondent reported were made by contributing to the modification in the specialty curriculum and changing their behaviours toward the learners. Respondents considered their learners as their future colleagues and people they will work with and entrust. Therefore, they demonstrated altruistic behaviours such as being kind and going out of their ways to teach them and include them in the clinical decision making.

When comparing respondents from the two hospitals, there was a clear distinction regarding the current medical educators' roles. The Sultan Qaboos University Hospital (SQUH) medical teachers identify themselves as teachers, and saw teaching as being part of their educational role. However, the Ministry of Health Hospital (MoHH) medical educators did not explicitly state that teaching is part of their current role.

Respondents from SQUH who had educational administrative roles stated teaching undergraduate and postgraduate learners a role without prompting them to

it. They clearly declared that they are teachers. For example, respondent S05 spoke with joy about his role as a teacher, teaching clinical skills and other essential skills for doctors in the clinical setting. S05, who trained abroad, said:

> My current roles, obviously I teach . . . In the clinical years, it's more of teaching at the bedside as well as in seminars. I teach not only [my specialty], but we teach medicine, we teach things like quality management, patient safety and professionalism, et cetera.

Whereas S04 sees his clinical, educational role as giving direction to the medical students. His role changes for the junior doctors to become an organizer and an enabler for his junior learner learning process. S04 said:

> To start with, my educational role for the undergraduate is, I usually give either didactic lectures or clinical bedside teaching. For the clinical bedside teaching, my role is to guide the students . . . . For postgraduate teaching, usually, we start the education with clinical bedside teaching. . . . we will go into a group discussion, and we would only be like a facilitator for them.

Respondent S11 being part of the teaching hospital identifies with training the undergraduate and postgraduate as a natural role. Interestingly, any role was given to him by OMSB he considers an added role. Such roles as administrative, supervising, teaching and evaluating the junior residents in training. S11 said:

> This is a University Hospital training site where we receive undergraduate and postgraduate. And in addition, I have [significant administrative oversight] for the [specialty residency] programmed of OMSB. So I supervise and interact with the resident both as an administrator and at work. So I do clinical on average two to three clinical days per week, okay. And most of the time, I have trainees working under me during the shift. So during the shift, I will supervise their cases, give them teaching, you know. And also, maybe we will go beyond that to discuss some theory, and I'll give them evaluation as well.

On the other hand, most of the Ministry of Health Hospital (MoHH) respondents and especially those with "officially given tiles" by the Oman Medical Specialty Board (OMSB), explicitly did not speak of teaching as their current role. Instead, they identify their educational administrative roles as their current educational role in contrast to teaching, which was only specified as a role when respondents spoke of their past educational roles, challenges or opportunities. They also tended to use the word "trainer" rather than "teacher" as the OMSB uses this as an official title. Therefore these may be just the terms they are using in their everyday practice. R03 said:

> At present, I am the [significant organisational role], and for OMSB, Oman Medical Special board, I am in the scientific committee, exams subcommittee and curriculum subcommittee, plus I am a member in the scholarship committee department.

R06 said:

> I was one of the people [with longstanding organisational involvement] and now I'm . . . continue my role as a trainer, as well as a member of the Scientific Committee. And within the Scientific Committee of the Residency Program, there are subcommittees. I am a member of the Subcommittee of the Examination, as well as the Resident Progress Subcommittee.

All respondents value the interaction between teachers and students. As learners, all respondents valued the interaction that they had with their teachers. As teachers themselves, they appreciated the interaction with their students as an opportunity to learn and enjoyed this encounter. The clinical setting is an opportunity for students to improve their clinical skills rather than to examine them on their knowledge of a topic. R09 said, "I like direct interaction rather than giving lectures [to the students and the residents]."

Importance of Recognition

Respondent R02 indicated that he was a trainer for OMSB, and he uses the title "official trainer" when stating his role. He used the word "official" as a sign of recognition by OMSB, which sheds light on the importance of officially being recognized as educators in the clinical setting for this and few others MoHH respondents. Interestingly none of the SQUH respondents used the words "official" or "officially." R02, an official trainer for OMSB at MoHH, said:

> I am an official trainer in [my specialty] residency program for the Oman Medical Specialty Board, and I have been doing this for the last three years. And previously, over, like, six years I was then doing clinical teaching as part of my training, being a senior resident to teach the juniors.

Some respondents from MoHH expressed their uncertainty regarding their expected role from the educational institutions. In contrast, all of the SQUH respondents expressed that their educational roles were clear to them. When I asked respondent R10 about his educational roles' clarity, surprisingly, he believed being recognized as a trainer will give him access and answers to what he needs to know to perform his role. Therefore, he is expecting his role to be much more apparent than before recognition. R10 said his challenge is "the clarity of my role, and we don't know what our objective is. We are sometimes new trainer—some of us have been in this business for a long time, but some of us were doing it unofficially." He added, "I've been a trainer unofficially for the last few years, but this year I'm an official trainer, so I'm in the system."

R02, an official trainer for OMSB at MoHH, believed that his role now that he is an official trainer is much structured since he is a trainer with OMSB:

I think it was most important when I got this role of, you know, trainer in OMSB, to become more structured with the commitment. . . . You know how you are doing when you get evaluated. And you know which path you are taking, what are the criteria, what are the objectives, and what I'm doing means. So it's more structure than the previous year.

Respondent R02 and others believed that being part of the organization (OMSB) and becoming aware of their teaching roles, such as learning objectives, assessment and evaluation, will enable them to connect to teaching and learning resources compared to before joining OMSB officially. In addition, by joining the postgraduate educational hierarchy, the respondents now have a sense of belonging, a roadmap and feel empowered to improve the student's learning journey and their own journey. However, recognition officially as trainers did not address the issue with the lack of clarity of the educational roles of MoHH respondents, as expressed in the next section.

Most respondents from MoHH stated that their institution is only a teaching institution in practice; however, it is not a teaching institution on paper. Some of those respondents believed that not being officially recognized as a teaching hospital was why the Ministry does not support their educational role. The belief is that if their hospital were made a teaching hospital officially, their experience would be more pleasurable. They compare themselves not only to the SQUH doctors but also to other Ministry of Health Hospitals that they say are recognized officially as teaching hospitals.

Interestingly, a number of the MoHH respondents believed the Ministry of Health senior leaders do not recognize their hospital as a teaching hospital. They also explain that the lack of recognition is the reason for the lack of support. The

lack of recognition and support will be addressed further on in this chapter in Section 4.5 Support. Furthermore, respondent R02 believed that the original intention for building his hospital was to provide healthcare, and this aim has never changed. On the other hand and in practice, R02 stated his hospital teaches and trains medical students not only from Oman but as well from overseas. In addition, they also teach a large number of residents from OMSB and nursing and allied health students. Therefore, this respondent and others from MoHH seem to be saying that they are not teachers but do the teaching. R02 said:

> [This hospital] started being like service, that was in '86, it never aimed to be as a teaching hospital, and it's continued from that time. So, it is definitely a teaching hospital in practice, but on paper, it's not considered to be a teaching hospital.

On the other hand, respondent R16 from the same hospital disagreed with the statement that the Royal Hospital was not a teaching hospital. Instead, he defined his hospital as being the main teaching institution. R16 said, "I think no, it's an understatement, it's definitely the main institution, but however, the time that is dedicated to teaching is less."

R15 expressed that it is not just that the hospital is not recognized as a teaching hospital officially, nor are they recognized as teaching doctors for the Medical College. This belief he explained by comparing what the affiliated doctors at SQUH receive compared to what they receive from the medical college, such as access to the SQU electronic library and allowance for teaching: "You're receiving the students, you're teaching them, you're getting an allowance for that, once a year, but you're not given access to their electronic library."

However, respondent S08 points out that at SQUH, all doctors receive a monthly teaching allowance regardless of whether or not they teach, compared to doctors in other affiliate hospitals in the country where they receive no allowance for teaching. However, R15 above and other MoHH respondents stated that they get a financial reward or a yearly bonus for teaching. This reward they received from SQU if they are recognized as teachers by CoMHS or OMSB if they are recognized as trainers for residents. What must be the feelings of the MoHH doctors to know that they are rewarded differently as teachers? Would that be the reason why doctors from SQUH regard themselves as teachers more than at MoHH? And what it must be like for those MoHH doctors to feel less recognized despite receiving a teaching allowance? S08 said:

> Like you know, if you talk about the affiliated hospital, they don't get an allowance for teaching. We get an allowance for teaching. But also I think we get an allowance for teaching here, but we have also teachers whom they don't teach.

R03 explained that their request to be recognized as a teaching hospital is not a matter of financial rewards. On the other hand, it is to do with SQUH doctors getting a financial reward for teaching. MoHH respondents feel that they are looked at as inferior compared to SQUH doctors. Could this feeling of unappreciation and inequality be the reason why some doctors are influenced by their frustration and feel challenged with their teaching roles, and eventually react to opt-out of teaching? R03 said:

> The second is also the financing for these teachers. It is completely different from the SQU, Sultan Qaboos University Hospital. For them, it is fixed, and it is as an allowance; for us, it is only just a bonus. And it is a big difference

between these [at SQUH] and us, especially the tutor here. They have a sense of . . . we cannot say inferiority, but we can feel the difference. And usually, we overcome it by saying this is our country and those are our people, so it will help to teach them. . . . because this discrimination it causes some sort of sensitivity between the clinicians.

However, this belief by the respondents of MoHH that their hospital was not intended to be a teaching hospital contradicts the aim of the Oman Project, which was with the Royal College of Physicians and Surgeons of Glasgow. The Royal College helped the MoH establish this hospital to be a state of the art facility for the training of postgraduate doctors in the early 1980s (Hull & Geyer-Kordesch, 1999). Moreover, from personal knowledge, I heard colleagues from the first generation that worked at the Royal Hospital that it was also the intention for this hospital to be teaching medical students as well. Besides, the current vision for this hospital is to train undergraduate and postgraduate medical and allied health students (Ministry of Health, 2020).

Some of the MoHH doctors in this study recognize the lack of resources such as space teaching, and they realize that the MoH cannot create space due to financial constraints. It cannot do it without the support of the educational institutions that support teaching their learners.

Meanwhile, the Ministry of Health (2021) website clearly stated that the Royal Hospital is a teaching hospital. It is a teaching hospital not only for the undergraduate medical students but also for the postgraduate residency program of OMSB, a centre for the membership examination of the Royal College of UK and Ireland and in addition training the nursing and allied health students. The Ministry of Health (2021) stated:

The Royal Hospital is a major teaching hospital for the MD course conducted by the Sultan Qaboos University. It also serves as the main training facility for the postgraduate Residency Program of the Oman Medical Specialty Board in Medicine, Surgery, Obstetrics & Gynaecology, Child Health and Laboratory Medicine. Further, the Royal Hospital is recognized by the Royal Colleges of UK and Ireland as an official centre for the membership examinations in Medicine, Paediatrics and Surgery. Nursing and paramedical students of the Nursing Institutes in the capital area, the Institute of Health Sciences, and the Sultan Qaboos University are also provided clinical training at the Royal Hospital. (para 6)

The CoMHS also identify the Royal Hospital as a teaching hospital with reports on the number of affiliated teachers (College of Medicine and Health Sciences, 2013, pp. XVII & 55). Furthermore, this CoMHS (2013) report recognized those who teach medical students as affiliated teachers:

The [Royal Hospital] is a teaching tertiary hospital with 623 beds and 265 senior specialists and senior/consultants (70 affiliated teachers) and 1,298 nurses. Like SQUH, it receives referral cases from all over Oman. In the RH, the students rotate in medicine, child health, paediatric, surgery, Ob/Gyn, surgery, accident & emergency, radiology and anaesthesia departments. (p.55).

The college employs 75 academics (of whom 25 are clinical), and there are 329 affiliated clinical teachers (176 in SQU Hospital and 153 in affiliated hospitals and health centres; (College of Medicine and Health Sciences, 2013, p. XVII).

One could argue from the above statement that this MoH hospital is a teaching hospital; however, it also does not imply that all doctors working at this hospital are also responsible for teaching. A booklet produced by the Ministry of Health (2007), Code of Ethics for Doctors stated under professional/ethical

obligations that all doctors are teachers/educators. Therefore, it is an obligation to educate not only their patients but also their colleagues, medical, nursing, and allied health students. The Ministry of Health (2007, p. 13) stated:

> Besides being a clinician, a physician is also an educator. To that effect it is your duty to:
>
> • Spread health education among patients, family and the community
>
> • Develop skills, attitudes and practices of a competent teacher.
>
> • Teach and supervise adequately your junior colleagues, medical, nursing and paramedical students.
>
> • Be honest and objective when assessing the performance of those whom you have supervised or trained. (p. 13)

Another document that emphasizes the importance of teaching in a clinical setting by the Ministry of Health is the minimum conditions for the medical doctors' job in hospitals which was given in medical bylaws in 2014 (Ministry of Justice and Legal Affairs, 2014, pp. 87–88). In this document, for doctors to be promoted to become a senior consultant from being a consultant. One "Should be involved in teaching and educational activities at educational, training and health institutions" (Ministry of Justice and Legal Affairs, 2014, p. 87). But the bylaw does not mention teaching or education as a criterion for promotion for any rank below the senior consultant or once you become a senior consultant. This missed opportunity by the Ministry of Health senior administrators to promote teaching clinical settings by all doctors was used by some doctors to opt-out of teaching. R11 and R12 believe that doctors can opt out of teaching because there are no consequences for not teaching, and since teaching means to the doctors that they have done it on top of their

clinical duties, which will lead to their being overload and needing to put in the extra effort. R10 said:

> So there is no way you can get rid of anybody, you're going to demote somebody, or you're going to remove somebody because he's not teaching or not doing, even if he's doing his clinical work. They feel that, I have just to do my clinical work, and as long as I'm doing some work, I'm going to be identified as somebody who is doing his job.

R11 said, "Because I have not been given a dedicated time, so it's understood that I will teach if I have time. If I don't have time, I'll not teach. So there is no compulsion on me to teach."

In contrast, senior doctors from SQUH recognize their hospital as a teaching hospital, and their role is teaching in addition to their clinical roles. They performed this role as being part of their clinical role and in harmony with each other. Respondents S08 and S09 started their comments about their educational role by emphasizing that their hospital is a teaching hospital. As if it should be taken as common sense to have an educational role. S08 said, "So actually, I teach undergrads as part of the faculty in the College of Medicine in the hospital. And also, I teach postgrads like OMSB residents and also as a faculty in Oman Medical Specialty Board." S09 said, "So I work in SQU, which is a teaching hospital for both undergraduate and postgraduate," and S11 said, "This is a University Hospital training site where we receive undergraduate and postgraduate."

SQUH respondents, in contrast to MoHH respondents, consider themselves being part of the faculty of the medical school and the postgraduate institution. Therefore, the SQUH respondents have a sense of belonging to the teaching community without needing a written or an official statement to state it. This sense

of belonging was not the case with any of the MoHH respondents. Therefore, one must ask, "What it must be like for the Ministry of Health respondents to see their role in the MoH hospital differently?"

Absence of Clear or Standard Roles for Medical Educators

Respondents from the Ministry of Health Hospital were inconsistent in their response to knowing and having been given a written document that defined their educational roles from both the undergraduate and the postgraduate education institutions. The experiences of respondents differ when asked if they had a written document specifying their educational roles. The difference in responses depended on the hospital they worked at, the affiliation to the educational institution and past education and training experiences. The majority of the respondents from the Ministry of Health could not recall if they received a written document defining their educational roles from CoMHS. As for the OMSB document for roles, the respondents point to the document with their job description and responsibilities.

Respondent R04, another officially recognized trainer for OMSB, was unsure about the trainer manual booklet's availability (Oman Medical Speciality Board, 2014), which included clarifying his role and responsibilities as a postgraduate trainer. However, the "training of trainer workshop'" conducted by OMSB significantly impacted the trainers' clarity of educational roles. R04 said, "As a trainer, I was told that there is a booklet, manual to the trainer, what they're expecting from us to do, what [residents] should be doing, how-to guide the residents, and so on."

However, on examining the OMSB Trainer Manual Booklet (Oman Medical Speciality Board, 2014), I found the manual to be comprehensive in communicating

to the trainers the rules and regulations for scientific committee members, selection criteria for committee members and trainers, trainer responsibilities, performance monitoring and OMSB policy and procedures. However, the Oman Medical Specialty Board (2015) in Program and Training Standards for OMSB Residency Program booklet stated the trainers' responsibilities are highlighters as those that are obligations. For example:

> 6B.5 The Trainers must provide graded supervision appropriate to the competence and experience of the Resident and decide on awarding EPAs to the Residents as deemed appropriate. (p. 52)

Moreover:

> Trainer Responsibilities

1. Be familiar with the objectives of the rotation he/she is supervising.

2. Orient the resident at the beginning of the rotation regarding the objectives of rotation and the responsibilities during the rotation.

3. Supervise and teach the resident daily based on the graded responsibility according to level of training.

4. Each patient seen by the resident should be discussed with the trainer prior to decision making (keeping in mind, graded responsibility).

5. Trainer should provide continuous feedback during the rotation to the resident so that corrective measures can be taken in a timely manner.

6. Trainers along with other supervisors should appraise the resident at the end of the block using the OMSB evaluation form. Sufficient time should be allocated to discuss the evaluation with the resident and provide advice.

7. Trainer should provide opportunity for resident to perform procedures.

8. Trainer should be approachable for help, feedback, and resident support.

9. Trainer should promote comprehensive approach to patient care.

10. Trainer should allow for protected teaching time.

11. Trainer should demonstrate strong interest in education.

12. Maintain educational environment conducive to resident education in each of the OMSB Medical Competencies.

13. Participate in Faculty Development program to enhance teaching effectiveness and promote scholarly activity.

14. Trainer must regularly participate in organized academic activities, e.g. rounds, journal clubs, conferences, etc.

15. Scientific Committee Chairman may request Trainers to participate in Scientific Committee subcommittees when necessary. (52-53)

For the undergraduate teaching, respondent R04 felt adequate information at the initial stages of becoming an official medical teacher was provided to her. In addition, such information had introduced her to the undergraduate curriculum and provided her with the necessary expectations:

> There were lots of meeting with the administration from the SQUH. They came and met with us, they've explained everything, they've explained the process, they've explained what is expected of us, objectives were very clearly laid out, and the process was described to us. There were written documents that were given to us, there were applications that we have to fill in, that has introduced us into the system, and there was an agreement documented.

However, on further asking about the document given to respondent R04, she expressed that the document did not specify the expected role. Instead, generally

stating the objectives expected from students. She said, "I think it was very generic for everybody with objectives."

R12 stated, "There are objectives laid down by the SQU for each year and for each group of the students, this will include what students are supposed to be doing and what they are supposed to be knowing." R14 said, "We just follow the objectives that are written down."

Yet R10, acknowledged the document's existence with a degree of certainty. However, he believed that due to doctors' nature of work and multi-layered academic responsibilities, some of the teaching doctors did not have the protected time to perform their roles to the standards expected from them by the educational institutions. R10 said, "I'm sure there is [the document], as I said the doctors are very busy, we are not 100% academic—some people have more academic role than others."

R10 clearly stated that the written document is not clear: "No clear role, particularly not for the undergraduate. . . . it's a little bit clearer for the postgraduate than the undergraduate."

This view of general educational roles was echoed by other MoHH respondents who confirmed that the documents received from SQUH were a set of learning objectives. However, when I asked SQUH respondents about their educational role, most stated their roles to be clear. However, written documents do not serve the purpose of serving as the information source and a reference point. S05 uses "we" yet again to indicate that it is common practice that the doctors do not go back to reading the provided documents. Such comments may suggest that educational institutions need to use innovative and multiple ways to communicate

with their teachers. S05 said, "Yes, the curriculum and the written document are there, but written documents are written documents. We read it once, and then we never look at it again."

Another respondent believed that it was an expectation and implicit that those doctors at the university hospital would teach and were teachers. However, similar to the MoHH respondents, they lacked clear and specific descriptions of their educational roles. S08 said, "Actually, in the college, we don't have like specific, educator or teacher roles. I think it's inherited, also part of like, you are in the college, you are a teacher, so you have to be a teacher."

Similarly, S10 from SQUH agreed with the previous quotation regarding knowing or receiving a written document for their educational roles from the undergraduate and postgraduate Institutions. He remembered the expected educational-roles from the OMSB; however, for the undergraduate teaching, he only remembers the tasks he needs to do in the forms of student learning objectives, similar to the MoHH respondents. S10 said, "OMSB does have that, I don't recall as specific as OMSB document. . . . [In] the college we know the goals, overall goals, but I didn't see those specific point by point role of the trainer."

Respondent S08 acknowledged living in an era of multiple responsibilities and a very complex workplace that expects highly of them as doctors. Therefore, he and many others in this study wanted their roles to be specified clearly. S08 wanted a more concrete and more explicit boundary between his different roles, and he also wanted to see a well-defined boundary between his and his colleague's roles. He believed that having written roles for their educational responsibilities would communicate to him and everyone what is expected from them in their educational

role. In addition, he expressed that written communication was about building relationships with the view to build trust between the doctors and the educational institutions. This type of communication in R08 and some other respondents' opinions would help define goals for all stakeholders: the teacher, the hospital administration, the educational institutions. Also, they believed that they would understand the instructions without being confused about their expected educational-roles to achieve the learners' learning objectives. S08 said:

> Now we're living in a place or at a time where everybody is asking a piece of you, so knowing the exact roles, the exact responsibilities, and rights, and having that in writing so that you've actually got something to refer to. . . . so tell me what's your expectations so that I know if I can deliver that or not; that's very important.

I communicated via email, phone calls, and in-person with several officials from CoMHS, requesting a copy of the documents that MoHH respondents mentioned regarding their educational roles. However, none of my attempts to produce this document was successful; neither did I find it in the public domain, such as the SQUH website. In addition, none of the MoHH could locate their supposed copy of the document. Thus, I experienced difficulty with CoMHS as an outsider.

Lack of standardized medical teachers/educators roles nationwide was a concern expressed by a few respondents. For example, respondent S02 from SQUH believed medical teachers themselves could build up those criteria and requirements for their roles. However, he further believed that the lack of "critical mass" of educators, lack of policies and guidelines on developing such standards and requirements lead to inconsistent practices. He stated, "I think there are no standards

now for medical educators. If you want to talk in a nationwide, there is no set of standards."

S02 expressed a lack of proper coordination between medical education institutions and healthcare providing institutions. The lack of coordination was in terms of doctors' educational roles. He believed that those institutions need to interact effectively to meet their educational needs, and therefore, he stated that those institutions need to learn how to communicate effectively: "I think if we harmonized and become one whole, it will be better."

He further believed that all stakeholders should enable doctors to develop the standard criteria for their educational roles. The consequences of developing such standards would enable doctors' to differentiate not just students at different levels of learning but also their junior colleagues and their level of learning. S02 said:

> What happens now is that we tend to mix our role. So we can be very harsh to the medical students who are still junior, and we take the role of teaching residents. So we don't know in our mind and how, for example, to differentiate between a junior and a senior clerkship student and a resident R1 and the senior resident. So this role is not really clear in daily practices.

S02 and other doctors in this study discussed how the lack of clarity of roles had impacted upon them and their colleagues' judgment to discriminate the level of various learners. This lack of clarity of roles has added another challenge to their already complex clinical setting and caused unexpected anxiety in their educational roles. However, the sense of duty they felt toward their students made them deal with the challenges they faced in clinical settings. The sense of duty that the doctors expressed in this study are described in the next section below.

4.2 Influential People

In this study, respondents found that role modelling or role models significantly impacted upon how they are today as educators in clinical settings. All participants in this study reflected on their own experience as learners; they also spoke of observing and learning from their peers. They identified themselves with a teacher/s or role model/s when they were undergraduate or postgraduate learners. Some respondents related it to their upbringing, and some remembered school teachers and their influence on them today as teachers. However, most respondents related to their teachers during their postgraduate years as having the most significant impact on their becoming teachers today. For example, R08 and R02 did not dismiss the influence of their undergraduate teachers on them today. However, their undergraduate teacher's influences are more of laying the foundation for their medical knowledge. R08 said, "Undergraduate was not that much but still again, you know I owe it to [my teachers], all the information they gave us, and the importance that they emphasized and stuff, but for postgraduate, there were definitely more influences."

R02 did not dismiss her undergraduate teachers' influence on her choice to become a clinical teacher herself, but she expressed an awareness of that influence on her:

> So I think even if I was influenced [by my undergraduate teachers], and these [teaching] skills have been transferred to me, I am not able to recognize [my undergraduate teachers]—I don't even recognize my, you know, undergraduate supervisor—but I can remember all my fellowship supervisors because it's more of what I'm doing today.

Respondent S06 on the other hand went back to his childhood and remembered the influence of his parents on him. He had learned from them the desire to master his work and perform it comprehensively according to the values that he has learned from them. The dedication that his parents had developed in him by being examples themselves was a key value for S06. For such a reason, S06 believed that teaching was in his nature and something that came from his soul and engraved in him, which he would have done regardless of the profession that he would have chosen. He said, "I saw [teaching] like something which I would have done if I had taken on being a farmer. Then I would have probably done the same thing to those who would learn farming from me."

The "Good/Better Teacher

The respondent in the quotation below and many others in this study used "we" as if it were a matter of common knowledge and something to which everyone would give assent. The conversation below was about "who is the better teacher," where R11 believed that there is a collective epistemic position that has been formally defined and generally known among medical students regarding who is "the good, the bad and the ugly teacher." This view of the good teacher is shared between the two institutions. In this section, I look at respondents' views of the good teacher, and in section 4.4 looks at respondents' views regarding the "bad and ugly" teachers.

Respondents viewed having human characteristics as being the essence of the good teacher. Therefore, it was not surprising for me to find many respondents reporting to her that their goal was to be a good teacher. They believed that such a goal would subsequently be reproducing the next generation of medical teachers. The respondents saw the good teacher as not just the one that gave them the medical

knowledge but also inspired them, cares for their emotional needs, showed compassion toward them, and gave them without sensing that they are waiting for something in return.

Many respondents viewed the "good teacher" as inspirational to them whom they remember as role models, and their teachers' influences went beyond their university time and into their medical practice. R11 used "we" to indicate himself and his peers as students who evaluated their teachers during their undergraduate years. They categorized their teachers based on how those teachers were interested in teaching them and on the way in which they taught them. R11 said, "[I]n college, we could always make out, who is the better teacher, and who is the teacher who is just teaching for the heck of studying. So that [better teacher] has always inspired us."

R02 compared one of his role models with formal knowledge in medical education to one who did not. Both of his teachers were inspirational, but the one with the qualification in education appealed to him more, and he wanted to be like him. He established that having an educational background completed the good clinician and made him into a good teacher. In the quotation below, R02 understood why his program director during as a trainee himself studied medical education to the level of a master's degree. This role model had the abilities and knowledge in medical education that transformed his clinical specialty to be a more holistic scientific subject. Therefore this role model inspired him to study and get a qualification in medical education. R02 said:

> [M]y program director in [my specialty]. He has [Masters in] Medical
> Education, and I saw why he was attracted. He knows how the curriculum is,
> and he knows about the assessment; he knows everything about the program.
> He has the background. I felt he was different from others, you know,

program directors in [my other training centre]. He was a very good clinician, very good as a program director, but that particular background did not show up.

Also, respondents identified role models as unique individuals that they imitated and reproduced when they became teachers themselves. For example, they state that one of the top characteristics of a good teacher was showing enthusiasm for teaching. For example, S05 stated the students identify with the good teacher as the teacher who understands their needs, communicates well with them, and shows enthusiasm. S05 said, "The students don't take very long to realize that you've got all this [characteristics] plus having a passion for teaching then you become a star. You become a superstar actually, not just a star."

Another respondent, R03 and many in this study desired to be like their good teachers one day. Their role model not just showed a passion for them and a passion for teaching them, but also those role models were welcoming, giving, caring, encouraging, patient, committed, sharing, sincere, and motivated to teach them. In addition, many respondents believed those role models took time to develop relationships with their learners and encouraged their learning process participation. R03 wanted one day to teach like his role models: "You feel that when you see somebody teaching you like that, they give without looking for something. You like that person, and of course, you feel that you want to be in his position one day."

R03 further mentioned that doctors who teach needed to be responsible for their multiple roles and show awareness of their needs. He expressed that doctors needed to go beyond the line of duty of just caring for their patients, as they needed to transform their students into themselves- doctors who teach. R03 interestingly

correlated his enthusiasm for teaching as a senior doctor with his junior years as a doctor. Teaching and developing future medical teachers was a process that the respondent felt to continue. When the respondent spoke about their enthusiasm for teaching, I noticed that they always coupled it with wanting to give without looking for personal gain. This was also consistently related to developing the next generation of doctors and the next generation of medical educators. R03 said, "In our job, if you don't feel the happiness and interest, you'll not survive. . . . If you're not interested from the beginning, you will not be interested when you are a senior."

Another said that he had reproduced his teacher enthusiasm due to becoming motivated by them, which he identified to be beyond ordinary: "I am an enthusiastic teacher because I had excellent teachers."

Other respondents also considered and emphasized that being passionate about teaching was one of the good teacher characteristics. S05, for example, believed that students developed an opinion about the good teacher by being inspired by the teachers' knowledge, their verbal and nonverbal communication. Therefore, he believed that it is essential for a good teacher to be aware of how they communicate with their students. S05 said, "I think you . . . need to have the knowledge. You need to have the passion. You also need to have the communication skill which you might think is very easy but the voice modulation, body language, they are all very important."

Another respondent believed his commitment to teaching was as a result of the environment in which he learned. Their teachers did their job as clinicians and teachers; they went beyond their duty to make their learning environment reproduce excellent clinicians and teachers. R11 said, "[W]e come from institutes where you

have dedicated teachers. Although you may be passionate, but it is not, really, easy work. Teaching should not be taken easily because it's not easy to keep the student motivated, to keep them interested in the subject."

Another stated the reason for his own commitment to teaching was his professor's altruistic behaviour that had established the concept of medical education and the development of the first generation of medical educators in Oman. When I asked S01 for the reasons for becoming interested in medical education, he said:

> [T]he influence of the late [a widely renowned figure was being mentioned]. I don't know if you know him or not? (Yes, I know him). He was my first tutor when the medical school started here. He was more passionate about education. He was the professor of paediatrics at the same time, he was a good teacher, and he has done a lot of great things since the start of the country.

Being Altruistic

Respondent R01, like many others in this study, believed that his educational role was to be a role model. As a role model in his educational and medical role, he believed that he demonstrated being influential not only on his medical students, junior colleagues but also on his patients and all those in his team caring for them. He also emphasized that his intention and commitment to teaching were driven by seeing his students learn. He believed that he developed a sense of satisfaction and fulfilment. This feeling he compares to the collective enjoyment that parents and children get, for example, when they enjoy playing together. R01 believed that everyone's collective enjoyment leads to a better outcome of the teaching and learning process. R01 said:

I feel personally as an educator; my role is to set an example for my, learners because that's the best way to learn. Not only to my student or undergrad or postgrad but even to my patients and my team at large.

Inspiration

Their teachers **inspired** them and became their role models because they were the subject experts and showed desirable and acceptable behaviours. Such behaviour was not just toward them but also toward patients as well, many respondents reported. Some respondents during their undergraduate years believed that excellence in professional practices was learned through experiences and critical reflection during the clinical encounter. For example, S09 reported that one of his undergraduate teachers' intention to teach them exceeded the formal curriculum and appeared to teach the hidden curriculum. This teacher focused on showing them a set of social behaviours and norms that they, as teachers, acquired over time from the learning culture that they became a member of. This teacher modelled such social behaviors and norms in the Omani culture for his students who seek to become members of the medical and teaching communities.

When S09, as a junior doctor, went abroad on a scholarship to train in his chosen specialty, he experienced an environment that encouraged the traits of the good teacher mentioned above. This experience made him reflect on his own prior experience of his good teacher role model during his undergraduate medical school. Furthermore, he became aware of the reasons why his undergraduate teacher behaved in such a way and hence inspired him to want to become a teacher. Moreover, during that training period abroad, S09 became aware of the influence the learning environment's organizational structure and culture had on his teachers. I

will discuss later of this chapter the impact of the working environment on the medical teacher of the future. S09 said:

> [T]hose role models, the thing that they taught me, the most is not the knowledge; it's actually the professionalism and their dedication to patient care. . . . It's very rare in those days actually to see those attributes in someone. However, when I went to Canada to do my residency, I learned why they're actually like this because those people actually did their residency there and the system actually forces you to do that.

However, S09 also described some rather undesirable characteristics of clinicians and not just of teachers. He had seen from other teachers, not his role model, risks if their students and residents are coming to believe that indeed this harsh culture (a culture of toxic masculinity) is part of what it takes to rise in the clinical hierarchy. One must ask if such unintended traits force medical doctors to reject teaching in clinical settings. However, S09not want to be responsible for espousing these values and this culture of toxicity himself; thus, he did not want to be a teacher if that was part of the hidden curriculum that was to be passed on to the next generation of doctors. S09 said, "But he didn't say I'm actually the professor or the consultant and just stayed away and just ordered you to do stuff."

On the other hand, desirable experiences and such interaction that promoted professionalism, not only with the patients but also with learners and colleagues, were imitated and elaborated on when they became teachers. The social interaction between the teacher, students and patients during clinical teaching in hospital settings impacted upon and changed students' beliefs and behaviours, usually positively. Such an influence gave the learners a desire to become role models to

their junior colleagues in their own right. Such interaction also relates to what was said above about the examples of negative role models.

R06 found from his own experiences that it was easy to feel optimistic about the teacher role. He believed that teaching roles become attractive if it was associated with and was seen as being beneficial to all parties involved. He further believed that when teaching is experienced as a valuable and admirable role, one would want to sustain and develop this role. R06 compared the above desirable experience with teaching to an experience where a doctor finds himself inevitably having to work to oppose those that are obstacles to their teaching roles and try to change to desirable teaching and learning culture. R06 further believed that the teaching role would seem more attractive to people who see it as a matter of transmitting an admirable set of cultures and practices; than to people who see it as a matter of navigating a passage within an unattractive and dysfunctional culture. R06 said:

> I felt that I am responsible for teaching. Contributing to your community is a feeling that you only appreciate when you do it; otherwise, you can't describe this feeling. The feeling that can't be described is that of contribution to society without really expecting anything in return. It is something in you and you sometimes also get it from people whom you have looked as an example. Maybe your father or maybe your brother, maybe your sister.

Passion for Teaching

Respecting their teachers who showed professional behaviour, expertise in their specialty and also who strove to be the best in their field; motivated R10 to learn as much as possible and think of teaching and being a role model as something

that they themselves would want to do. Even though this respondent described her encounter when she was a student with this particular teacher as feeling fearful, while her teacher appeared to be "arrogant and scary," one characteristic of this teacher has eliminated her fear. R10, while observing her teacher showing and being passionate while performing his clinical and teaching duties, contemplated wanting to be like him one day. She thought that teachers like this role model, regardless of how they behaved, had the intention to see them get through medical school and become members of their professional team. This particular "arrogant and scary" teacher's passion for his work motivated her to learn as a student and give her the goal to be passionate about what she wants to do in her future career if she wants to succeed like this role model. R10 believed that this passionate teacher made her intensify her focus on learning regardless of experiencing unintended behaviour from her teacher. R10 said:

> I don't think fear was, as I said, the major issue, but it's kind of come all together in one package. I think also you learn from the people who are very good teachers, genuine. The common factor between all my teachers is that they are very passionate about their job. They really loved what they do, and they really believed in it, and they really felt that they want to pass on the information and the passion. You could feel the passion in all of them, definitely very, very passionate about what they do, and that's what makes them good at their work.

The passion and commitment shown by teachers have transformed the learners to want to become like them. Respondent S03 believed the passionate role models had for their work motivated them to improve their practice and teaching quality. An essential ingredient for success at the individual, team, and organizational levels, S03 believed in building a vibrant medical education culture:

I think I was always fascinated with the two surgeons when we started the surgical rotation in SQU hospital. They used to have these very guided sessions, which helped you to identify a mass, for example, or all the major surgical presentations. So we never had problems with surgery. When it comes to medicine, and these people were really inspiring people [teachers] . . . it was their voluntary act and the way they used to teach you, lets you know that they were passionate about what they are doing.

Such teaching transformation was needed to enhance learning, give the learners' confidence, inspire them to learn, and develop lifelong learners. However, some teachers showed no desire to teach or may appear to find teaching an unpleasant chore. This undesired teaching made the learning experience hard and denied learners the inspiration they might have received from their teachers. R01 said, "As I said, doctors are different. They are teachers. Some of them even come to it as if they have been dragged into doing it. They're boring. And you tend not to learn really . . . nothing can get through you, you know."

R01 observed that such negative interaction demotivated learners, as learners perceived teaching not to be valued by their teachers. Thus, he believed that students risked being demotivated not only in their immediate clinical studies but also in their perceptions of themselves as future teachers. While medical doctors may be held at the highest levels of the profession, as has been argued throughout this thesis, doctors are called upon to be teachers by definition; however, some respondents report not to have experienced it as learners themselves. In addition, some teachers showed a lack of interest in, and passion for, teaching as respondent R09 experienced disrespect from some teachers during his learning time. He felt that those teachers lacked

commitment to, and even respect for, their students and the curriculum they are supposed to teach. R09 said:

> There are some teachers who won't come to scheduled teaching for different reasons. And/or if they come, they come late, which I don't like. If you are assigned for teaching unless there is a good reason, or you can always allocate somebody else to come in your place because students' time is important. You know, if you delay me for half an hour or an hour, and I wait, there's sometimes we have to move to another hospital, for example. Sometimes, you know, this is very, very annoying for us, cancelling sessions or delaying a session. So this was something that I felt shouldn't happen.

Respondent S04 found interacting with teachers who showed compassion and care as a sign of flexibility that motivates students to learn compared to those insensitive to their needs: "I loved my interactive and kind teachers much more than those who are rigid and solid or those who are very good but cannot give you the proper information, they talk, and you don't learn. So I wanted that when I talk and teach, people will learn from me."

Respondent R05, from a very young age, found a passion for teaching and enjoyment in passing on his knowledge and helping others develop to achieve their desire. R05 said:

> So keen, actually, because it's something that I strongly believed within myself, that this is me, this is where I'm going to be, this is something that I've thought about, even when I was really in high school, like enjoying delivering the knowledge, enjoying being an instrumental tool in assisting others in reaching their goals, and enabling them also to, or empowering them, to reach their dreams.

Giving Back

Many respondents sense compassion, humanity, and a feeling of appreciation inspired them further when they give back by teaching others. This feeling comes from the gratitude they felt when they were learners and needed guidance to progress to the next stage of their development. A sense of responsibility emerged from this interaction between different learners' levels, and a relationship was developing between the givers and receivers in these teaching and learning encounters. Therefore, they saw the need for this relationship and interaction to continue, and this act of kindness was done even if they did not know what it is that they will get back. This cultural value of reciprocity encouraged them to want to give back. Respondent R05 called it the "art of giving":

> Having reached this stage of education, or having reached this stage of knowledge, or this stage in my current position; I wouldn't have been here without those who also have assisted me throughout this journey. So, it's a mutual relationship. You give, and you get back also. If I give, eventually it's someone else who's going to be there, it might be my children, who are going to need someone also, who mentors them and treat them right. So it's really, I see it as an essential element of life, like the way that we interact with each other, it's the art of giving. So, unless we give, we will not get, isn't it?

As an undergraduate, respondent R03 observed and had the experience with his role model. As a knowledge provider, he was patient and inspirational with him and his peers and gave them positive reinforcement. He believed that his role model gave him more than expected of them, as they volunteered to come after their duty to help them improve their studies. Those role models R03 and other respondents believed they give without expecting anything in return from students or their

administrators. In addition, those teachers made them feel recognized, valued, and important as learners. This kind of behaviour has created an environment that fostered natural altruistic tendencies and inspired and motivated them to want to reproduce such role models and continue teaching the next generation. For example, as a teacher, R03 intends to go beyond the line of duty to transform his learners into himself. This respondent felt a sense of responsibility for the process that they, as doctors had to continue. R03 said:

> One of the chest physicians, he was very informative and the way he was delivering the information he was sharing and smiling and encouraging always. He never keeps you down, by the way. Even if you are a student, but he always comes in the evening time; even if he's not on call. He'd come, and he'd just teach us if we request him, and he's not complaining. He wants to give. . . . You feel, when you see people like that, they give without looking for something, that you want to be in that position of course. During postgraduate training, of course, my mentor who was in charge of me was the same.

In talking about giving back, several respondents trained in multiple different clinical environments used the phrase "contribute to my own people," which further reinforced a moral commitment to maintaining the cycle of excellence in teaching. R06 emphasized the importance of not asking for anything in return for his services as his feeling of joy was rewarding enough. Interestingly, R06 contributes his act of kindness and the feeling of giving back to his past exposures to the different training environments. R06 said:

> I have people in my residency, whether it's in the UK or in Canada, where I also spent some time, who have shown me that kind of attitude [giving without asking anything in return] and give me definitely from their own time. And, maybe, because of my past experiences, that has helped me;

because I've done [my training in my specialty] in three separate countries. . . . So that exposure to work with people from a wide range of cultures and countries and to see how they also contribute to their own people, I think somehow it has helped me also to be someone who motivated me to help others to become better doctors.

Teachers' unconditional support positively impacted upon learners and added value and improved the medical community's experiences. In addition, respondents reported that teaching gave them a deep sense of satisfaction as they watched students and residents learn. Those respondents felt able to take pride in the accomplishments of their junior colleagues. Respondent S02 believed that teaching their juniors doctors is part of their identity as senior doctors, and it feels satisfying and rewarding. S02 said:

I think it's good to be a medical teacher because this is how you give back to your teachers. We trained students, and we are brought up that we give to the juniors whatever we learn. So this is part of our nature and role as a physician that we teach the junior. And you feel satisfied when you see your juniors progressing and then achieving their dreams of being, you know, either an MD or a specialist later on. So it gives me self-satisfaction and also a feeling of ownership because those students, you know, it is not like we own them because we taught them. It is a good feeling.

Another respondent, S06, reported that great teachers inspired him to teach by being examples of how to do clinical teaching sessions. The concept of "see one, do one, teach one" encouraged and transformed him into a doctor, and he reproduced his teachers' actions and the intention of giving back as a reward for what was done with him. S06 said:

I started residency in medicine, then my consultants, [name], the way the medical meetings and teaching rounds were conducted in the morning, the

way that they actually taught the students, and I was there, seeing the process

of how teaching occurred, I simply thought that this is the way to go. Later

on, I got an opportunity to work in a unit in Southampton where one of the

best-known figures in lymphoma, [name], they were two of the best-known

figures in the entirety of Europe. How they dealt with the registrars and the

SHOs, etc. . . . So I think, for me, it was like mentorship. I saw some of the

very good medical teachers around me, and I just simply liked the idea that if

you have to give something back, this is what you can give back after having

acquired knowledge, skills in a particular specialty. This is what you get from

medical education, but what do you need to give back for medical education

is you want to develop that sort of attitude of learning in your students, and

that is what I'm trying to do. I don't know whether I'm successful or not, but

I try to do it.

R11 similarly had a sense of purpose. He had a fulfilling feeling of giving

back and contributing to the community of medical professionals. Giving back also

was a way he expressed getting to know those that might join the community in the

future in their clinical specialties. Teaching has multiple purposes for many

respondents in this study. Many stated that they teach to update and improve their

knowledge and skills in their field of specialty. Also, teaching improved the way they

give care to patients and the way they developed future doctors. R11 said, "Well it

just feels good because you feel that you are able to give back something that you

have acquired over the years, and you feel there is a need for a constant education in

the medical field."

There is a sense of responsibility to give back. The purpose of contributing

and making a difference in medical education and medical practice. R05 said, "If I

only take laws and regulation and current status quo as the reason then I am part of

the problem rather than the solution." R08 offered, "If you are going to do something, do it well."

Respondent R11, in the previous quote, spoke of giving back to his community by teaching the next generation what he has learned from his teachers.

Sense of Duty

Many of the respondents from both hospitals saw themselves professionally as doctors and considered teaching as a duty. Being a doctor the respondents felt that it was a job that got paid for and they had to do. However, many felt that it was their moral responsibility to teach the medical students and junior doctors. One respondent, R06 felt a sense of moral duty to teach his junior colleagues; this feeling came from being the first Omani medical doctor trained abroad in a structured postgraduate medical training program. However, he reported that this sense of duty alone was not enough for him to keep teaching. As a clinical educator, what kept him going on was the satisfaction of seeing his learners excel in his specialty. Respondent R06 and many like him embraced their challenging, complex multiple roles by perceiving their teaching role not only as a duty but also as a joy. This enjoyment satisfied them as people that they were not able to put in words. R06 said:

> [My qualification] put me in the spot where I cannot run away from my duty. But of course, what keeps me going is the satisfaction. There's always that great feeling. I enjoy teaching, and I get a lot of satisfaction when I see my students doing so well. That satisfaction is very difficult to describe."

Respondent R01 described his feeling of joy when teaching. He compared this feeling to the fulfilment parents have when playing with their children and seeing them happy. This kind of emotion gives him the strength to do more for his children and similarly give more to his learners regardless of the challenges he might

face. The R01 further believed that collective enjoyment leads to a better outcome of the teaching and learning process. R01 said:

> Education has to be simple, has to be enjoyable. You have to enjoy teaching like anything in life. If you don't enjoy it, it won't continue for long. . . . And that enjoyment will drive you to get stronger and stronger and to do more and to add to it. And I feel it should be the same way in education as well; you have to enjoy it.

However, on becoming a doctor respondent, R03 felt that being a teacher was part of his job as a doctor, and therefore being a doctor meant to him being a teacher. He believed that he developed the perception that doctors are teachers from when he was a medical student. As a medical student, he also thought it was his right to be taught by clinical doctors. However, as a senior doctor, he found that he could have chosen to reject teaching medical students and junior doctors as teaching he believed was not an obligation in his MoHH appointment. Furthermore, R03 expressed his thought about his teachers during medical school and the reasons for teaching him and his peers. He believed that his teachers' taught him because it was their duty and responsibility to reproduce medical doctors. However, now he teaches because of the emotion felt inside him rather than teaching as a duty. R03 said, "I thought it's [teaching] part of our job, like a teacher in the school. . . . I will tell you something; I felt this is my right, I have to be taught. . . . This was the feeling when I was a student. Now I can see it that it has to come from my inside."

Many respondents expressed experiencing being appreciated. As clinical teachers, many felt valued and satisfied by seeing their junior doctors become specialists and medical teachers like them. In this study, respondents expressed that receiving their students' recognitions had put the icing on the cake for them. These

rewards came in the form of acknowledgements, thanks, appreciations, marks of respect, and gratitude and positively impacted those medical teachers in this study. They felt rewarded to contribute to their professional community and society.

Furthermore, those respondents did not associate the development of their future colleagues with an expectation of something in return. They also indicated that only by teaching can they see the fruit of their actions. Therefore, many of the respondents considered reproducing and preparing the next generation of doctors as their duty, responsibility, and something they enjoyed doing.

Respondents S05 developed an enthusiasm for teaching from day one after graduation from medical school, and he appreciated and acknowledged all the role models before him. He added, "It is because of the generation of tutors that we are here today."

However, S05 believed that if junior doctors lacked support to develop into senior-level doctors, this would lead to a disconnection between different generations of doctors.

Respondent R05 from MoHH echoed respondent S05 from SQUH appreciation and believed; that the only reason medical education has reached this level is for their teachers who have taught them over the years. As clinical teachers, they excelled because of those who led them as clinical teachers, which is how the cycle continues. He said, "We wouldn't be able, actually, to reach what we have reached over here, was it not for those who taught us actually, over the years, and for those also who taught them, it's a generation of very good tutors."

A Legacy That Shapes the Next Generation

Many respondents have reported positive teacher-learner interaction as being a skill that doctors need to be mindful of and embrace as being the norm of the culture of medical education. The respondents shared their negative and positive learning and teaching experiences and reflected on how they shaped them to become the teachers they became today. In this study, the respondents reported that they either transformed their negative experiences by reflecting on them and resolving to behave differently toward their students or by attempting to reproduce the behaviours and approaches they had experienced positively.

Being prepared as the next generation of skilled professionals and specialists, many respondents recognized a process they have been through as junior doctors. This process has prepared them to be the teachers that they are today. Choosing to teach, respondents felt they were shaping learners and influencing the next generation of doctors and medical teachers, and hence their legacy is passed down from one generation to the next generation. As R14 stated, being a teacher was developed over the years by seeing other doctors do it, and therefore, it became second nature. R14 said:

> I think [teaching] is built-in in all of us, actually. Because we were the same, it's partly because we are what we are because somebody else did it, okay. So, if we don't do the same thing, then we will not get the next generation up in this position as well.

Respondent R08 discussed shaping doctors' of this generation by guiding, positively impacting, and removing any misconception they had developed as undergraduates. The medical culture conditioned this generation of junior doctors to believe that they knew everything about the patients and their diseases, forgetting the

need to communicate with their patients or their families. R08 believed that medical

students developed arrogant behaviour early on in their medical schools, and

therefore as senior doctors, they needed to teach them the importance of

communication skills with everyone by being a role models to them. R08 said:

> We give the student all this information at the medical school. But maybe
> they miss the point of, you know, that you are humans. A lot of this is based
> on human judgement, so with experience, your human judgement actually
> tends to be more skilled or not purified, so you actually seem wise. However,
> they have a lot of egos that, العجرفة [Arrogance], that "I'm a doctor," so it goes
> into their head of "I'm a doctor." . . . Communication seems to be a big
> problem. We try to be role models for them.

In addition, R08 attributed ego development in this generation to the

undergraduate medical curriculum and the lack of emphasis on communication skills

between the patient/their guardian and the doctor.

Respondent R07 believed that his teaching methods reproduced how he has

trained abroad as a postgraduate clinical learner. As teachers, they got this sense of

satisfaction, joy, and pride that their students are now excellent in their specialty and

great teachers and even more improved versions of themselves. Respondent R06

said, "I'm happy also to say that some of [my learners] became even better than me

in my field."

Respondent R05 taught medical students as a resident, which he found to be

challenging. However, he was eager to be the vehicle by which undergraduate

medical students reached their destination and achieve their desire to be doctors.

Moreover, he felt excited to take on the teaching role and became aware of his

commitment to developing the future generation of doctors. R05 believed in the

formula that a good teacher equals a good doctor, leading to this high level of enjoyment and passion for teaching that he experienced. Furthermore, R05 intended to do, for his students, what his clinical teachers did for him. By being a role model, he was confident that he was handing down professional values, attitudes, and behaviours from generation to generation and therefore, each generation builds on the knowledge of the one before them. This continuum enables medicine to progress forwards; he stated:

> So, even from day one that we graduated, as doctors, because education is a very essential element of the medical practice. If you are not a good educator, actually, there is no way on earth that you can be a good doctor, because if you are unable to help those junior to you, and help bring them up, then it's going to be this disconnection between the generations of doctors., which, in fact, it's going to stop everything, isn't it? We wouldn't be able, actually, to reach what we have reached over here, wasn't it for those who taught us actually, over the years, and for those also who taught them, it's a generation of very good tutors.

Respondent R09 expressed his educational role as being a duty and responsibility before it became an interest. He felt it was his duty and a responsibility to pass on not the knowledge to his junior but the attitudes and skills that cannot be learned from a book:

> Before [teaching] becomes an interest, it becomes a duty. It's a duty and a responsibility to train because we have to provide the knowledge and experience which we have learned to these students and residents. They do their part in terms of reading books, but I think with medicine, reading books is not the solution to get that knowledge and experience. You need to have really clinical exposure and teaching, and to be told about the pits and falls of patient management, and the tricks of surgical procedures that they have to be aware of.

R11 felt that as he developed in his medical career, his satisfaction grew as a medical doctor. He first was satisfied when he gained respect from the medical community and sociality as a whole when he became a medical doctor. Then, as a doctor, he saw his patient satisfied with him, which brought him further joy; however, this enjoyment soon reached a plateau with time. However, he stated that teaching the next generation of doctors revived the feeling of satisfaction in him and many of his colleagues. He found teaching as an opportunity to gain further respect; this time from his learners. Teachers had always been held in reverence in the Arabic culture, and from the R11 statement below, respect for teachers was also exhibited in clinical settings. By experiencing this respect, R11 was highly motivated to update himself in his field as he felt accountability to develop his junior colleagues to become as good as him and even better than him. He believed he was accountable to develop that next generation of doctors for his whole community, family and himself if they needed medical care in the future. He said:

> There is already some amount of respect when you are a doctor . . . but when they see you teaching them, I feel that respect multiplies. So that is an opportunity. I had to upgrade myself, to stand up in the eyes of others, in front of my own colleagues, in front of my co-professionals, like professionals who are there. And then they, I feel, find me more approachable, and you yourself feel that you know, you are able to give much more, so that makes you a better person, probably, and you feel you have an opportunity to give. And also it makes you more humble I feel . . . It's an opportunity.

Respondent S02 compared his time as a student and a resident in Oman with students he was teaching as a medical teacher in Oman. He considered new medical students and residents to have better opportunities than students and trainee doctors

during his time. He believed these opportunities resulted from establishing the OMSB in 2006 and The College of Medicine and Health Sciences (CoMHS) new medical undergraduate curriculum in 2008. He credited those two events to have provided the medical students and junior doctors with "the road map" for their career path. These two events are the product of senior doctors trained in different overseas countries and returning to reproduce what they have learned from various medical education cultures to develop the next generation of doctors in Oman. S02 said:

> I think the new medical students are lucky because the trainers now in Oman have been exposed to different schools of medicine. They graduated from different universities worldwide, so the student gets exposed to different mentalities and backgrounds. So I think the new generation is lucky . . . because, you know, we introduced things which we had seen abroad. . . . Before, it was only like an apprenticeship. . . . They did not have a road map; there were no career plans; there were no clear exit exams, so they were almost lost. Only good residents travel abroad and got residency abroad, and those who stayed in Oman were lost.

S02 further thought that learners are fortunate as training is now conducted locally. What makes it favourable, he stated, is that most trainers are also socially and culturally connected to the learners. Those trainers have been trained abroad in the best training centres and brought back with them the best practices to develop the new generation of doctors. On the other hand, S02 considered that those doctors who did not get the opportunity to train overseas were unfortunate and searched for an identity as doctors and teachers. He supposed those doctors who lacked such an opportunity were detached from a larger sense of purpose to continue their legacy as doctors. Therefore, he thinks that those doctors had no obligation to teach the new generation.

Another North American trained respondent stated that the environment and the training system he was exposed to as a junior doctor influenced him and other colleagues. S11 did not believe that his teaching and learning motivation in the clinical setting resulted from his exclusive North American cultural exposure. However, his intrinsic motivation, intense desire and a purpose for developing the junior colleagues influenced his action, and the North American system was the vehicle to empower him and his colleagues to feel internally rewarded. Interestingly, he expressed that his current teaching context and culture were not optimum, and he finds it challenging. R11 said, "I think, see, [North America], it showed me the way, but it did not give me the stimulus or, you know, the passion or the . . . . It is just a system that helped me to do what I am doing now. . . . But I'll be frank, the environment here, the society, it's difficult."

Similarly, many participants confirmed that being committed to teaching was as an outcome of their structured training program abroad as junior doctors, especially those trained in North American countries. Motivation to teach, respondent S08 and most that trained overseas attributed to that period of their learning journey abroad and the opportunities provided to them by such a learning environment. Respondent S08 believed that observing and experiencing the various ways his colleagues and teachers conducted their role as doctors, and taught in clinical settings, had influenced him to develop into a competent teacher. This experience made him want to contribute, share his new knowledge and skills with others, and give back to his community. The impact of giving back triggered a positive change and a feeling of satisfaction for many respondents. S08 said:

Actually, because I came from a Canadian training system, which is I think one of the best in the world, actually you have to be educated you have to be teaching, actually. Is the environment there, it's made you come out of that program a teacher, and you like to teach, and you like to give the knowledge, and you like to. . . always like teaching, everyone around you. You have to give whatever you have, what you have acquired to the others, and also for the country.

I was surprised to hear one of the respondents from SQUH ask her if she had heard of the Canadian Syndrome, to which I answered yes. The Ministry of Health doctors' narrative, especially those who have not been trained in North American Hospitals, is that the authorities and decision-makers in the Ministry of Health, CoMHS and especially OMSB recognized the North American trained doctors as the best trainers and medical teachers. Many MoH junior doctors and a few senior doctors have shared this belief with me on many professional occasions. Those doctors believed that if they did not do their training in Canada or the USA, they would not be fully respected and recognized in the medical education community. They believed that they would be only accepted to fulfil their clinical duties as medical doctors. Also, they believed that the leaders from the institutions mentioned above excluded them from contributing to medical education. Many believed that contributing and participating in medical education in a clinical setting would improve patient care and the health care system in the Ministry of Health. Many doctors also expressed to me that to become a medical teacher in Oman, you have to be from the elite club, which they believed was exclusively for the North American trained doctors. However, SQUH respondent S10, a Canadian-trained doctor, wanted to correct the misconception about the Canadian trained doctors. He stated that the

Canadian Syndrome does not represent those doctors trained in Canada anymore. This term, in his view, is about the changes in medical education and the changes that Millennium doctors represent and exemplify as individuals looking for excellent mutual concessions and compromising behaviour with and between the other doctors, the patients, the organization, and the learners. It is about giving the medical service, but also they are looking at personal gain also. S10 attributes this to the current generations' beliefs and behaviours compared to the older generation, whose altruism satisfied and rewarded them emotionally. In this current generation, their altruistic behaviour is coupled with an emphasis on personal gains and rewards. S10 said:

> Probably you've heard about Canadian syndrome, okay. So I don't think it is specific for Canada or the Canadian graduate. It's the perspective of medical education, the medical field or medical profession have changed. In the past, people, physicians, used to give only, they won't take much. I think it's in the eighties, up to nineties actually, I think in the nineties it started to by giving and taking a little bit. Maybe give is more. Give service mainly. You don't look for what am I going to get out of it, right. Now it's becoming, okay, I'm doing this, what is the return if I'm getting any? This is not at our level, physicians only, but also with others and I think it's a generation thing and it's getting tougher.

When I was having a conversation in a social event with one of the respondents from MoHH about the Canadian Syndrome, he also stated that Canadian Syndrome did not represent Canadian or North American trained doctors anymore. He believed that it represents those that confirm, adhere and stay in agreement with what the North American trained leaders voiced. He reports that if you are not with them, you are against them. Therefore, they will exclude you from any decision

making or participation in the future of medical education in the country. The non-North American-trained doctors, mainly from MoH, depicted the situation of medical education as being polarized. They believed that there is some form of pre-existing conflict to either become allies or lose support. This situation, some respondents say, is causing the feeling of being discriminated against.

However, S11, Canadian trained, had the same view as S10 for doctors as trainers and not just doctors as healthcare providers. In this view, he identified the Canadian trained doctors as having all the necessary qualities to develop the next generation of doctors. They are not only fit to provide medical services, but they are also leaders, teachers, inspirational and ultimately role models. If these are the characteristics of the so-called Canadian syndrome doctors, they are similar to the characters as the good teacher, then what must be the world like for MoH doctors to describe the North American trained doctors with the Canadian Syndrome. S11 stated that most of the medical workforces are from non-North American systems due to the inability to attract the North American medical specialist because, in his view, of the lower salary scales.

Respondent R11, also North American trained and MoH employed, believed doctors did not like to teach because of their misconception about what teaching means in the clinical setting. S11's viewpoint was that misconception had developed over time and related to how and where the doctor was trained. The training he believed to impact the doctors' decision "to teach or not to teach ". R11 saw much clinical teaching as opportunistic and believed that it does not have to follow a rigid curriculum. Many of his senior colleagues, he felt, missed teaching moments because of their belief that teaching has to follow a prescribed curriculum; in addition, those

teachers assume that their learners know, believing that others must have taught them. However, R11 and those respondents trained in North American believe that they are reproducing and replicating the way they have been trained to produce the future generations of clinical teachers. R11 said:

> People don't like to teach because sometimes they feel that they can only teach formal topics. . . . That's when, you know, the residents and the students also lose, and also the teachers lose that opportunity. [Teachers] should use every opportunity to teach. . . . So, it's the day-to-day opportunities that people lose on teaching. So it's basically because of my exposure to people teaching me in this way, that I found out you know, that students will benefit by teaching, even on those day to day topics, along with the formal topics.

As junior learners, many respondents believed that their teachers accepted them as colleagues and not just learners. On the other hand, as undergraduate students, some respondents thought that their teachers did not have time for them nor showed interest in teaching them. Respondent R01, for example, reflected on his early years in an undergraduate medical school. He remembered the lack of support from his teachers as an international student, especially when he needed reassurance and the courage to deal with his new situation. Learning abroad as a young learner has challenges that R01 overcomes as he becomes more confident and familiar with his new environment. R01, MoHH who trained abroad as UG and PG, said, "At the beginning, it took me a while to be really as brave, and I know I needed at that time someone to hold my hand and say, come around. I did not find that at the beginning."

On the other hand, many respondents found themselves supporting their teachers in their clinical duties once they graduated from medical school. Only when they became clinical teachers themselves in clinical settings, and after reflecting on

their postgraduate training time, they understood why their teachers during training as junior doctors gave them time, helped them more and supported them more than when they were medical students. On reflection, many respondents in this study reported their realization that their teachers looked at them not only as junior learners but also as their colleagues rather than someone in their way. Those teachers they believed had the intention to prepare and shape them as the next generation of doctors and teachers. Respondents R06 and R07 spoke with lots of satisfaction about their role in shaping the future doctors and seeing the fruit of the seeds they planted now standing beside them and supporting them. As stated earlier in this chapter, this is a feeling that some respondents could not describe or put in words. R06 said:

> It is a great feeling to be [a medical teacher] for certain reasons, but perhaps one of the really best examples of how it feels, when you see your colleagues who were your students, now they are your colleagues as consultants in the department. That is a great feeling. . . . And I have helped them, not only to become good [in my specialty] but, also, I've helped them a lot to get opportunities to go abroad, to get fellowships. And I helped them by guiding them where to go and what field to take, and I am very happy with that. That is the greatest satisfaction that you can get it is when your student become your colleague.

R07 said that "because those who are going to be your student; tomorrow they might be your colleague, so you need them to be good; with good knowledge, and you have to be a good model for them."

Another respondent S01 felt proud and rewarded as a teacher. He felt rewarded as teaching improved his clinical skills. He felt proud when he observed his learners growing into specialists. He believed it was for his environment that promoted learning and promoting competent clinical skills. S01 stated that he felt

rewarded when he taught to encourage the learners to consider joining his specialty. The teaching he believed was the way to produce the specialists of the future in his field. Like S01, many respondents believed that they encouraged learners to join their specialty to provide support and make learners feel welcomed during the specialty rotation. Many respondents recognized that being a medical educator enabled them to enhance themselves and build future specialists in their field. S01 (SQUH trained abroad):

> I feel that it is an honour to be part of the education and part teaching environment. . . . So, you feel like, proud of yourself and proud you are working in an environment of teaching as a medical educator. . . . Plus, also the student will feel that they are welcome in the environment, and this will help them to the get through, and maybe like the specialty. And in the future, maybe, choose it as a postgrad career and because they felt that they are within their environment. So we don't separate students from staffs and so on. So that is mainly the main benefit.

4.3 Self-Enhancement

All respondents in this study believed that teaching was one way to improve their knowledge and skills, and hence they believed teaching itself was a motivator. It was a motivator and reinforcer to improve their teaching continuously. Interestingly, some respondents reported that they stayed on teaching in a challenging clinical environment because they considered teaching a reward for self-improvement for their clinical roles. Furthermore, many respondents highlighted that their desire to gain new insights into their specialty motivated them to teach. For example, respondent R02 experienced satisfaction from his own learning process while teaching others. He believed that teaching made him reflect and identify gaps in his own knowledge and improve his clinical skills. To R02 and many other

respondents, teaching was part of their continuous self-improvement and self-development. R02 expressed a win-win situation when teaching, and most importantly, teaching improved him as a doctor: "It's very good [to be a medical educator], and actually you are supposed to educate others in this role, but actually you will educate yourself first. . . . You simply educate yourself while you are educating others. And R07 said, "I felt [learning by teaching] is the best way to deliver the information, to be a model of a teacher with good knowledge, good commitment, good attitudes, and that's it."

The above-reported situations where teaching is a motivator to self-enhancement become a motivator to teach (i.e., the need to improve themselves in their specialties) drove the doctors to teach students and junior doctors. This teaching yields positive results for the doctors and their learners, and this action was an incentive motivating the doctors toward reaching their goal to improve their knowledge and skills in their specialty. This cycle is known as the motivational cycle, where an individual's needs were driven by incentives to reach the goal that fulfils the need.

R03 considered teaching others to be his way to progress and develop as planned in his specialty. Respondents recognized that there are differences in clinical performance between those that taught and those that did not. They considered those that taught superior in their medical practices to those that did not participate in teaching. R03 said:

> You are keen on being on track; of course, if you keep repeating your information by teaching, you will keep yourself always updated and more informative. Of course, this is to make you different from the person that is

not even in contact with students. That information, of course, goes if you don't keep practicing.

R14 also considered teaching to be part of development and self-improvement. Therefore, he valued students questions as such questions from his students may identify gaps in his knowledge which motivated him to learn how to improve himself. He said:

> I always felt [teaching] is part of my own education, actually. Because teaching itself is just repeating myself and also there are questions from the students or the residents, if I don't have the answer, I go and look it up and that itself also educates me.

One of the challenges R01 shared with me was about forgetting the details of the necessary knowledge to teach his learners. He acknowledged that updating and refreshing his knowledge was essential to him as this ensured his learners got the most out of their interaction during a clinical encounter. This interaction purpose was to guide, support and prepare the junior doctors in their path to becoming senior doctors. R01 said:

> All of us, even as an educator, we tend to forget even about the best topics we have. So we have to refresh, we have to prepare a few questions and a few things really to help our junior ones to go through the ladder of the upgrade to the clinical status.

Furthermore, other respondents considered that teaching allowed them to reflect on their knowledge and skills and served to force the clinician out of their daily routine. For example, R05 considered teaching his students to be like a self-monitoring exercise and attributed gaining new insights to things he had learned a long time ago. Whereas S09 believed teaching was a way to interact with his peers at all stages of being a doctor:

So, teaching is a good experience, in essence, that it also solidifies the knowledge that we have. . . . So, it's not only in delivering the knowledge to the junior students, but also to solidify your knowledge, and also to analyse whatever actually I have learned as a physician in that time. So it was a good experience from that point of view.

S09 said:

It's [teaching is] an obligation and it's also part of breaking the routine, instead of just doing all the clinical work, you interact with people, you actually you need to read more and update your knowledge more in order to do actually the teaching. So it actually pushes you to do the teaching.

Nearly all respondents perceived teaching as a welcome opportunity, and they explained that their learning through teaching has a beneficial influence on their clinical practices. Such an opportunity kept the senior doctors up to date with an ever-expanding body of knowledge and improved their professional work in their respective fields of expertise. R06 considered teaching his junior doctors as a motivator to stay updated to face their challenging questions. He further emphasized that teachers' role had changed with the readily available information at hand to his learners. The role has changed from the information provider to becoming a facilitator of the learning processes. R06 said:

Postgraduate teaching is challenging because first of all, you should always be someone who is updating knowledge and well abreast with the current practice. . . . If I was not expected to teach postgraduate students, you could say that I wouldn't find the motivation to be up-to-date. And I think that definitely, has helped me, especially . . . in the day-to-day practice. Because you don't want a postgraduate to embarrass you by saying, there is now a new technique . . . So that kind of information can only come by being more up-to-date than the postgraduate students. These days they have a lot of resources available to them, so they are able to know the latest in the field.

Some respondents expressed their view about the importance of feeling valuable as teachers in maintaining their motivation to teach. One such method that made them feel valuable was through students' feedback. They believed that feedback led to their development as professionals and teachers. However, R10 expressed that they do not get to know their students' feedback about them, and therefore, they had no way to know if they needed to improve their teaching or know their students' needs. R10 suggested introducing an open feedback culture in Oman, where students and teachers give each other feedback without being anonymous. This type of open feedback suggests R10 will help the learner and their teachers develop in their job:

> We also benefit from feedback, so the feedback comes without us knowing. The resident gives feedback about us; we give feedback about the resident. It will be good if it's like an open—I know what the resident finds that need to be improved in us, like knowing what they need. I feel the whole assessment process should be opened, so we know, we learn, we learn from our mistakes, and they learn from their mistakes.

S02 emphasized the importance of students' feedback to individual teachers to improve their knowledge and teaching practices. As medical doctors, they tend to assume that they know it all and are always going to be successful in meeting the students' learning needs. However, the lack of students' feedback to the clinical teachers was because of short and insufficient encounters with teachers, making it difficult for students to evaluate those that taught them. However, he believed that the medical school is reviewing their policy to evaluate teachers by students because of their affiliation with the World Federation for Medical Education (WFWE) accreditation. S02 said:

I think it's us only as medical educators, we take it easy, and we tend to think that we know everything and we teach them the right thing. But I think trainers should be evaluated, and the teachers should be evaluated by the student and the residents in terms if they fulfilled the objectives of being a teacher or not. The feedback for the programs, but they don't feedback for the teacher. We don't get individual feedback from teachers. I think we need to do that. But I think they are trying to establish a system now because there are also running under the accreditation of the WFME, so I think they are moving into also individual evaluations, but currently, I think its only because of the nature of the courses as the exposure is short to the student to that individual so maybe it's hard for them being evaluated by two or three encounters per month. Maybe peer evaluations instead of students' evaluation of 360-degree evaluation.

Moreover, another stated that with the establishment of OMSB, his teaching changed radically because of the feedback he received from junior doctors. S04 said:

One of the things which I have learned as a medical educator for years that the more you teach, the better you become as an educator if you get feedback. If you don't get feedback, you will be the same always. So I felt like when I started OMSB, the new program from 2007, and we started having feedback about our teaching, this was revolutionary for my teaching.

Furthermore, S08 stated the importance of constructive feedback given by peers, "I think we learn from each other. Constructive feedback from the teacher, like your peer, should help you to improve the teaching, the teaching skills."

4.4 Hierarchy Culture

Administration: Hierarchy Culture Is Seen as Challenging

R01, whom the Royal Hospital director-general highly commended for not being afraid to share and give his honest opinion, was also the most vocal and direct about his experience with the administrators in this hospital and the Ministry of

Health. Therefore this section mainly focuses on R01's experiences, opinions, and beliefs about administrator and doctor relationships. Other respondents from the Royal Hospital reported finding the administrators obstacles to rather than facilitators of their roles as doctors and educators. Again, however, R01 was the most direct and explicit about this view.

A culture analogous to social hierarchy may be observed when respondent R01 felt challenged in his educational role. He believed that his primary duty and obligation in the Ministry of Health was to respond immediately to administrators, especially when he was teaching. During his teaching session, R01 believed that this immediate response to administrators conflicted with his and other colleagues' duty not only toward their learners (medical students or junior colleagues in training) and the patient and all the medical team that facilitated their clinical teaching session. The lack of support was felt from low-level administrators such as public relations officers and higher-level administrators, such as the Hospital Director. R01 said, "the big obstacle or issue, as far as I am concerned, is the administrators in this particular institution and the Ministry of Health at large."

R01's experience with the administrators in his own country was opposite to his teaching experiences with the hospital administrators when he was training as a junior doctor in western countries. In western countries, R01 found the administrators facilitators of his roles as a clinician and an educator. These two opposite experiences made R01 reflect and express concern for himself and all his colleagues involved in teaching and the impact these recent experiences had on their satisfaction in their educational roles. R01 said, "[In this hospital], doctors seem to

facilitate the administrators work," and, "Even at the lower rank of administration. They tend to create more trouble than to sort it out."

Another challenge that R01 raised was the administrators misunderstanding of using new communication tools in this modern era. R01 believed mobile phones made the administrators in his hospital think that doctors are available all the time or on-demand. He further felt that administrators expect doctors to respond immediately to their phone calls, especially if they were not on their clinical duties. In one incident, R01 received a call on his mobile phone when he was teaching, so he did not respond until he had finished his teaching session. Once he finished his teaching session, he could not recognize who the caller was and hence did not call back. R01 stated that using a voice messaging system was not part of the Omani culture; therefore, he had not responded to many unknown callers. However, he was surprised to receive a written warning for not answering and showing respect to his superiors. R01 believed that this warning letter indicated that the Ministry of Health authorities did not support nor respected their educational roles. A better communication system can sort such a challenge between the doctors and administrators. R01 believed setting clear boundaries for their roles by higher authorities in MoH will give them the support and respect they need for their educational role. R01 said, "You have a duty or obligation to respond to hierarchy, alright. . . . Now, the priority in this culture tends to be to go along with the administration, alright."

R01 believed some administrators in his institution were supposed to support and facilitate health professionals' multiple roles. However, he stated that those administrators were not qualified for the job, nor did they have the appropriate

training for their facilitators' roles. Therefore, it is not surprising that they do not professionally perform their duties; instead, they facilitated personal matters or attended so-called VIPs in the country. R01 said, "Most of [X] officers, their education level tend to be the lowest . . . . If they are lucky, they will have some education. . . . Most of the time, they tend to facilitate certain issues concerning them or their relative or some people in the hierarchy."

Many respondents shared their concerns with what they believed to be the culture of urgency. The teachers felt threatened as they knew they would be disciplined if they decided not to respond to the administrators demanding their immediate presence. This issue was seen as a challenge not only from within their institution and the whole Ministry of Health and the country. R01 acknowledged that higher-level administrators understood and appreciated senior doctors' busy schedules, and they were unlikely to demand their immediate presence. Nevertheless, it was part of the culture of beliefs that the hierarchy has such an expectation. R01 said:

> But the admin as always is admin, and our administration in the country really doesn't, sometimes, comprehend the actual problem. . . . This is one of the big challenges, really, I have found. . . . The culture of administration that everything is urgent from their point of view and without taking other consideration of what it might be, Alright. That's one of the big challenges really I have found.

Some MoH respondents in this study believed that nothing would change regarding how the administrators within the MoH hospitals control their daily clinical life. They thought that the hospital leaders did not want to deal with or discuss administrators' interference in doctors' day-to-day duties and roles. Once

more, respondent R01, whom the Director-General suggested would be of particular value to my study, stated that one of the challenges they faced in their educational roles is the cultural values and ideologies held by people in this society. He believed that disagreeing with higher-level people, authorities, or colleagues at the same level was seen as an offence and disrespectful to them.

Further, he believed that those colleagues who today shared his views would, when they themselves were promoted, be transformed to see the world in the same way as the managers and administrators that they now criticized. As if they became transformed, conform and became a replica of their bosses. By this conforming behaviour, R01 believed that his bosses do not want to offend their bosses. He said that colleagues agree with their bosses and do not criticize any decision they make as their culture values social status. This type of agreement is a sign of the desire to please and to appear polite and respectful. Therefore, R01 expressed a sense of hopelessness in changing their work culture due to misunderstanding those values. The more senior his medical colleagues become senior in position, the more they became restrained to meeting higher authorities' expectations. He believed this is a way of his colleagues behaving rationally to a collective agreement with others higher than them for self-preservation. R01 said:

> Seemingly, even if the people were at the same level as us, when they move up, the culture comes and shifts all previous expectations from them and now move to a different behaviour altogether. So I don't know how such a thing to be dealt with.

R01 also assumed that the higher administrators were unaware of their behaviour's impact on the lower-level employers or their teaching. R01 also believed that it was part of how many systems operating in Oman, where the authorities

appeared ignorant of the impact the implementation of their decisions had on those lower than them in the hierarchy system. R01 said that "if you always do what you've always done, you will always get what you've always got . . . We tend to be on autopilot . . . sometimes we don't think . . . it's just what is we're getting used to."

While the colleagues from SQUH didn't make such comments about hospital administrative colleagues, there might be similar feelings about the behaviour and attitudes of University or hospital administrators, which they did not discuss. However, they spoke of the college dean was supporting and understanding their educational needs whenever the occasion arises.

Workplace Well-Being

A culture of insecurity and bullying is part of the traditional hierarchical structure and is a form of teaching methods in the clinical setting. Some teachers believe that this method of teaching can motivate learning by the threat of humiliation. Some of the respondents found such behaviour acceptable. The respondents thought their teachers were putting them in a stressful situation to simulate real-life clinical situations where doctors needed to respond quickly to critical medical conditions. As students, the respondents of this study thought that such teachers were empowering them to deal with any situation. However, the assumption of the teachers' intention and the lack of proper communication between teachers and learners deterred doctors from teaching in the future. I observed that respondents in this study have reflected upon and transformed these bad experiences and became teachers. However, few respondents linked humiliating learners and bullying culture in undergraduate medical education as deterring medical students from reflecting positively on their learning experiences and hence lacked the

motivation to teach in the future. Such an experience may leave the doctor with the impression "If that is teaching, I want to avoid it if I can."

Many respondents believed that the teaching culture of a specialty and the ways teachers communicated their interest in them as learners was a factor that determined their future teaching intentions. The way teachers showed their interest in them stated by R16, either motivated or discouraged them from joining a specialty and ultimately influenced their future approach and commitment to teaching. A welcoming learning environment created by teachers made R16 feel safe, respected and listened to. Showing mutual respect respondents believed to have created a supportive and collaborative environment for them, and their teachers felt the enjoyment for teaching them. A community with rules to follow and specific tasks to be done; made each of them aware that they are an important and integral part of their team. The experience of such a community transformed them, and the supportive behaviours of their teachers enabled the students to trust them, and hence, to trust the entire team. R16 said:

> Well, to be honest, I found it [to be a clinical teacher] is fabulous. I think it's really rewarding because I think this is the most crucial integral part of MD [medical doctor] program, which is to be a medical educator to attract more people into the specialty.

Respondents experienced intimidation and humiliation as learners, either by observing other learners who were in a humiliating situation or were in that position as learners themselves. This negative experience was a motivator for some learners in this study as they reflected on such situations and pledged to change learners' experiences when they became teachers and then, over time, to influence how teaching was done positively. The respondents reported such a challenge to

transform them to produce an improved version of their bullying clinical teachers. Respondents express that teaching in the clinical setting was stressful for the learner; it was stressful for the teacher and their model [the patients]. R01 recognizes that the teachers have the upper hand and the authority to do what they want in their teaching session. However, the respondents believed that the teachers were responsible for both the learner and the patient's well-being, made the teaching experience as comfortable as possible, and made all involved at ease to achieve the best teaching and learning outcomes. R01 said, "And some of [the teachers] tend to put you down, you know. . . . Really, some of the teachers are really tough, but you don't need to be, you know. . . . So I think you have to find fun and enjoyment in it [teaching] because everyone is stressed."

Another respondent believed that teachers' role was to empower their learner with knowledge and skills to build future leaders in the healthcare system. However, his experience as observer of intimidation and humiliation had only one explanation in his mind: the clinical teacher was showing to his learners that he was in charge of the learning session and superior to everyone. The culture of hierarchy evident in the early years was passed down from generations of doctors. R15 said:

> But if you keep embarrassing them [the learners] in front of people, and even if they say something right, you underestimate it. If they say something wrong, you make them a joke in the round. Then people don't feel comfortable to continue the round with you. And I don't think that's the right way of teaching. You are building a doctor who will be holding people's lives, he should not be only knowledgeable, but he should be confident, he should be modest, should be able to communicate with any educational level, with his own language.

The above experience transformed R15 from just wanting to be a clinician as an undergraduate student to want to be a clinical teacher. He thought that he could do better than his teachers and give learners the feeling of empowerment. The intimidation and humiliation did not just hinder R09 from being confident but also made him feel vulnerable and exposed during learning sessions. He found that teachers did not understand learners' needs. He stated that learners needed a supportive learning environment, a learning environment that they could ask without seeing their teachers being furious over students' mistakes. R09 said:

> Some teachers are arrogant, they are short-tempered and become angry or upset if you don't answer their question or if you answer their question wrongly. Because sometimes if you don't hear or you don't understand the question well, and you answer, you know, they would just be upset. And that was done sometimes with me, sometimes with other students.

As a teacher, R09 established a supportive learning culture and wanted to be a teacher that provided a safe and supportive learning environment for his students. He stated in this study that he transformed his negative undergraduate experience into an opportunity to improve his learners' environment.

Another respondent, R16, experienced another example of the culture of hierarchy during his undergraduate experience as a medical student. His teacher was known and recognized by students to be strict, intimidating and unapproachable. Communication with such a teacher was challenging, he declared, and as students, they needed to be extra cautious out of fear of making a mistake and being targeted. R16 said:

> it's known that this actual consultant is somehow he is not very friendly with his students. You cannot have a scientific discussion; it's only "me and him,"

so you tend to obviously be led just by whatever he says. You can't even think of actually challenging him if he was wrong. And I find this is a problem.

The above experiences and the feeling of lack of connectedness between the student and the teacher R16 stated, transformed him into the sort of teacher who listened and was mindful of his students' needs. S03 also experienced this hierarchal structure, intimidation and humiliation in his undergraduate medical years. He did not find any of his teachers' behaviour encouraging him as learners to think of teaching as a role of medical doctors. S03 said, "There was no real role model which you really wanted to follow. They were, you know, all the variety of doctors who scream and shout, but they are very good in details."

In contrast to the previous examples, respondent R12 experiencing more or less humane treatment in different rotations in his undergraduate years has been a factor in determining which specialty he finally chose and eventually the choice to teach in that specialty. In the following example, the respondent's personal experience and beliefs determined how he finally chose his interest in a specialty. Furthermore, R12, as a postgraduate learner in the same hospital, felt a sense of belonging and being part of the team of his chosen specialty, which he did not experience in Specialty B in the same hospital. His teachers in Specialty (A) made him feel welcomed and willing to teach him compared to specialty (B), where he felt that he was perceived as a threat to his senior colleagues. R12 said:

> The environment in [specialty B] was totally discouraging people. On the other hand, [specialty A] there was something totally different about it, it was encouraging you, that's why I joined [specialty A]. You see, they will treat you like a real doctor, like one of the members of that department. They

don't look at you as a stranger. Okay? And also they will ask you to join, people will say, why don't you join the program? But on the other hand, some of them, like in [specialty B], they don't encourage people, to some extent, you felt that these people, they don't want to open a residency program, they feel the new doctors will take their places, to that extent. This was obvious in [specialty B].

The belief stated above about specialty (B) had been the discourse among medical doctors as early as the 1990s when I joined the MoH. The fear, on the part of senior doctors, that their junior colleagues would be taking their places as leaders in the specialty. This belief was shared with me by a close acquaintance who had joint specialty (B) and was forced out of it after a short period in the early 90s. Junior doctors who had joined specialty (B) over the years stated to me, in her job as the director of scholarship and training in MoH, that specialty (B) is a closed club, and only a few new members are allowed to join as permanent members. Therefore, the fear of joining this exclusive club has been reproduced over the years. The first sign of a challenge in this specialty made junior doctors leave to another specialty to learn and be role models. Humane role models encouraged R03 to choose his current specialty:

One of [my postgraduate teachers]. I remember him. He was very informative, and the way he was delivering the information, he was always sharing and smiling and patient and encouraging. He would never keep you down, even if you are a student . . . He wants to give; you felt that. When you see people like that, they give without looking for something, but you feel that you want to be in that position, of course.

In another early year experience as a medical student, respondent R09, with other peers, witnessed inappropriate and unacceptable professional behaviour by

clinical teachers during an academic session. During one of their clinical rotations, he encountered his teachers in the specialty (B), showing verbal aggression and disagreeing and in a conflict in an uncivil way and being a bad role model. Despite this open conflict in the workplace, R09 became a member of the specialty (B), despite that event. However, it seems interesting that respondent R09 implied that this behaviour became the norm and that people came to accept it as just the way things are. After this event, those teachers socialized as if there was no conflict, and the disagreement became water under the bridge. R09 reflected on the experience and stated that this event made him aware of what behaviour was not and what would be acceptable. For that, he thinks he is a better teacher by modelling appropriate professional conduct such as being humble, accepting differences, and respecting colleagues, students, and patients. R09 said:

> I remember when I was a student, there were like two or three consultants; they were verbally fighting. And I come out of that meeting saying, oh my God, I don't want to be in this specialty. But despite it, I became an [specialist B]. . . . But then, you know, over time, I adapted to that, and I realized [clashing and fighting] that's something normal. And because they express it, by saying don't worry, we fight now, but outside we are colleagues. . . . But I felt this was not right. You will convince people by evidence and by being humble and accepting something, you know, accepting differences.

Some of the respondents reported that clinical professionals used hierarchy as a sign of respect to those seniors to them. However, this respect for the organizational structure was an anxiety-producing situation for learners and, in some cases, for teachers. R15, as a senior academic administrator, found that colleagues are reluctant to trust each other and avoided confrontational situations. R15

experienced this situation when the specialty program director asked some teachers in his specialty program to give written feedback about a senior colleague teaching out-of-date clinical information to the junior doctors in training that they have verbally reported to him. R15 believed that this mistrust was reproduced by the misunderstanding of one of the fundamental Islamic values that one must respect and not hurt the feelings of those senior to them and those with authority, and never show their disagreement with their views and beliefs.

This respect was considered by Omani community members as a duty and showed that individuals cared for others. Such a reluctance to give written feedback in an undesirable situation, R15 believed, made clinical teachers feel devalued in the eye of others- the others being their learners, colleagues and the higher authorities in the workplace. However, he also stated that the clinical teachers believed that they might be exposed and less likely to receive support from others or trust others to back them in such situations. He further stated that clinical teachers believed some colleagues might even exploit them for unclear intentions. Those teachers R15 referred to were assessing the personal risk if they had to document their views. Therefore, by only verbalizing the feedback, they transferred the risk to their superiors; however, if they had to give it in writing, it implied, some say, trying to avoid confrontation and letting go. R15 suggested that the different generations determined the value of feedback differently:

> People don't trust each other here [hospital]. I think that's because of the way we've been raised. So like if you are sitting in a place, your father or your uncle said something, even if it is wrong, it's impolite to say "no, and I think otherwise." At least in the old generation. . . . I would say you need to choose your word very carefully when you present it.

On the other hand, R05 compared his hospital experience with that he experienced abroad as a junior learner. In the western culture setting, he addressed his senior colleague without their professional title. However, in his native county of Oman, this practice was not the norm. R05 stated that the culture of title hierarchy was a tradition and another sign of respect to authority; however, he considered it to be a barrier to teaching and learning. R05 said:

> Outside Oman, outside the country . . . they just want you to call them by their first name, Matt, Vera, George, or whatever. But here [Oman], we still have that mentality that you need to call me by my title, but it's fine, it's alright, the idea out of this, actually that the more closed you are actually, to your student, the more easily for them actually, to appreciate this, even respect you. And that's what I've seen. I've seen actually that those who actually were treating students in a very modest way, in a very humble way, they were one of the very successful teachers.

On the other hand, when R05 as a learner experienced a different environment with respect gained by giving respect, this transformed the learning situation into desirable and promoted learning. He recognizes that calling colleagues by their first name removes barriers between teachers and learners, bringing learners closer to teachers. Such an interaction builds a transparent and strong bond between students and teachers.

4.5 Support for Teaching

Many respondents stated the lack of institutional support as the main reason for feeling challenged in their educational roles, such as feeling pressured by the lack of time for their teaching and their own development of teaching skills. As a service provider institution, respondents stated that teaching has to be put back as their priority is their patients and not their students.

Teaching Institution

The primary concern of MoH Hospital respondents within the study was the lack of protected time for their educational roles and their struggle to balance between service providing, administrative and educational-roles. Those respondents either directly or indirectly mention protected time being on their wish list and something that they should have as a right being in a hospital that received a large number of learners. Those learners are not only medical students, junior doctors in training, but also nursing and allied health students.

On the other hand, none of the SQU Hospital respondents spoke about protected time at all. It was evident from the interviews with SQU hospital respondents that they identify themselves working in a teaching hospital, and time for teaching and training students and junior doctors are a given. S06 and S08 clearly state that they are in a teaching hospital and, therefore, teaching is a must and it is in their job description, and consequently, it is their responsibility to teach. S06 also stated (below) that if doctors cannot teach or are not interested in teaching, they better find a job in a nonteaching hospital. Such a statement was made in the context that some doctors will teach only and learn about teaching and some will excel and become trainers of trainers and teach others how to teach, and other doctors who do not fall in those two categories do not have a place in a university hospital. The meaning of this explanation becomes evident when S08 points out that in SQUH, they have doctors who are not interested in teaching and some who do not teach. S06 said:

> [I]f you are in a university hospital or in a teaching hospital, it is part of your job requirement to teach. You cannot go to a ship as a sailor and say I don't know how to swim. You've got to know to swim to be able to go on the ship.

You've got to be a teacher to go to a university hospital. Otherwise, there are lots of other avenues where you can go and practice your clinical skills. You don't have to be in a university hospital then.

S08 said, "[W]e are academia here, we don't choose a doctor who's not a teacher, who's not interested in teaching. We still have doctors here who are not interested in teaching."

As pointed in Section 4.1 about the importance of recognition as teachers and educators by MoHH respondents, they also spoke about the lack of support because their hospital is not recognized as an academic institution. Consequently, they believe that they have not been given protected time to teach to support their teaching role.

As stated earlier, one of the challenges doctors face when they want to teach in MoHH is the lack of protected time for their educational role. The challenge of being allocated time for teaching respondents report to be twofold: adequate human resources allocation and the other is the lack of policy regarding the right to be allocated time for professional development. However, those OMSB appoints to be the Program Directors for the postgraduate specialty programs are given protected time by their MoH hospitals administration for their administrative work. Interestingly, when R06 was a Program Director in her specialty for OMSB, she received full support from the hospital administration and was given the protection she needed to discharge her educational roles from teaching and related administrative work. However, now that she is a trainer only, she did not have the privilege of getting the protected time officially from her hospital administration and has to use her own time to perform her teaching duties as a trainer. I could not find

any official document supporting or rejecting this claim that only Program Directors officially get the protected time for their educational roles. Neither were any of the MoHH respondents able to give me an explanation for this discrepancy in getting the protected time privilege. R06 said:

> The hospital, they don't contribute much to you as a trainer. They are mainly involved with service. They definitely support you if you are a program director by giving you allocated time. . . . But of course, now that I'm a trainer, I don't have allocated time.

Another program director, R13, was stated to have been given protected time by his hospital administrator for his educational administrative role with OMSB. In addition, he stated that protected time could be arranged within the clinical departments within the hospitals. However, R13 could not utilize this privilege as the challenge of shortage of human resources and especially a shortage of senior consultants for delivering care in his specialty meant that his educational role came second in his list of priorities. Furthermore, R13 recognized that balancing between his competing roles was not unique to him or to Oman hospital settings. However, in the absence of protected time, it was a challenge that he had to find other ways to fulfil this role. However, he managed to balance his clinical duties and teaching duties by scheduling his teaching time to not interfere with him providing patient care. Others delegated some of their teaching responsibilities to junior colleagues. The reasons for the shortage of senior consultants will be addressed later on in this section. R13 said:

> I couldn't balance it [the service with the teaching]. I never took any protected time, actually, because you can't. But definitely, if you can be away mentally as well as physically away from the patient care time and

areas, then definitely that will help you in focusing on that teaching if you want to prepare and things like that.

In the above quotation, R13 believed that protected time for teaching would have more value in his busy department if he could be away from his immediate clinical space and have the ability to detach himself from thinking about his clinical duties.

Nevertheless, early on in their medical career, respondents learn that they have two important competing roles, and in a busy clinical setting, patients care was always the winner, not surprisingly. However, as they progress in their career, these doctors have an internal conversation with themselves and reflect on their second important role and try to find solutions to enable them to do it appropriately. They find themselves trying to find the time, even if it has to be outside working hours, to do it. R02 said:

> when I was in training, the most important challenge, actually, was that I don't know what to teach sometimes. And when you are on-call, you are supposed to teach your juniors, but you are actually busy and focused, to be honest, more on doing your job. But actually as you get senior, you re-evaluate the situation. I saw there is a deficiency in my role as an educator. Then you realize that I want to solve it, but you don't know how to do it. Then you come up with something.

Respondents R02 in the above statement knew what he needed to do as a doctor. Nonetheless, he had the challenge of balancing his duties as a doctor and as a teacher for his junior colleagues. However, with experience, he overcame the challenges he faced in his teaching role. First, he became aware of his own lack of knowledge and skills to perform his educational-roles. He then identified what he

needed to improve and finally came up with solutions that he had executed. Other

MoHH respondents echo this individual effort performed by R02.

R04 is another doctor who experiences the same constraint as R02 in regards

to the competing roles. As a senior clinician and an educator, he added another role,

the administrative role, to an already busy schedule. Once more, the teaching role is

pushed to the bottom of the list because those respondents believe this is a patient-

focused hospital and patient care is their priority. In an officially recognized teaching

hospital, one must ask if patient care will not be considered and perceived a priority?

The doctors in MoHH believe that to be given protected time for their teaching role

is not a top priority for their service providing hospital administrators. R04 said:

> I enjoy teaching . . . The only challenge that we have is the protected time or
> the adequate time. Because we are an in-service hospital, we are doing lots of
> clinical duties, and in addition to that, I have some administrative roles as
> well. On top of that, I have my academic roles. So I think the mix of these
> roles is compromising on each other, and I find myself at times not able to
> give that particular teaching session to the residents.

Furthermore, R09 and many others express the opinion that their hospital

setting is busier than the SQUH. In addition, the SQUH working hours are longer

than MoHH working hours, which is a challenge for MoHH respondents to meet

their educational duties. R09 believed that if this MoHH were considered an

educational institution, they would have the option to choose if they will do more of

teaching or more of clinical duties to balance between their different roles, but now

this option is not available to them. R09 said:

> I think working in the government hospital where you have less working
> hours compared to the university, for example, and it's a very busy service
> provider compared to, you know, the university hospital. You are obliged to,

you know, do your service, at the same time you teach. . . . So you need to have some sort of a balance.

Interestingly, R15 suggested having longer working hours, which could alleviate the discomfort caused by the shortage of senior doctors and needed time to teach. The Minister of Health issued a ministerial decision determining the working hours of medical employees in government medical institutions (civilian and military; Ministry of Justice and Legal Affairs, 2016). This policy increased the working hours from 7 hours per day to eight 8 hours per day. However, when I asked the respondent about this increase in the working hours and whether it would help him and his colleagues in their educational roles, he expressed the belief that implementing such a decision would be challenging. This challenge R15 is believed to have arisen from an opportunity being missed by MoH when a Royal decree was issued to regulate medical personnel working in medical institutions (civil and military; Ministry of Justice and Legal Affairs, 2014). He explained the missed opportunity in that it would have been easier to implement by increasing the working hours when this new regulation was issued in 2014.

Furthermore, because of this regulation, all health personnel in the government sectors received increased salaries. Therefore, R15 believed that health personnel would resist the increase in working hours because of the missed opportunity by the MoH administrators in 2014. It should be noted here that the Sultan Qaboos Hospital had always worked the eight hours shift as part of their regular working hours. Interestingly, five years later, this policy has not been implemented or enforced in any of the MoH health institutions, and to date I could not find the reasons for not implementing this policy. R15 said, "But only one thing

came, which is the salary which got better, but the working hours were the same, and I personally was disappointed."

In the previous quotation above, R04 and others in MoHH find themselves unable to honour previously timetabled classes to the postgraduate residents, which is part of their role, because of time constraints. As explained in the following quotations, this inability to give his timetabled classes is due to a shortage of senior consultants. In some clinical departments, they did not have an adequate number of senior clinicians, which meant that those there would be overwhelmed not just to manage the day to day clinical and administrative duties but also their teaching duties. This limitation leaves very little time for respondents to reflect on their teaching or develop themselves in this respect. Hence, the inability of those respondents to devote time to engage with the "scholarship of teaching and learning." R15, for example, believed that teaching is problematic for him because he is from a service providing hospital. In addition, he indicated that he experiences challenges in fitting in the clinical bedside teaching for his trainees because of the lack of protected time.

On the other hand, such a state of affairs would compel those respondents to adopt more didactic, as opposed to active and exploratory, approaches in their classroom teaching. R15 stated his trainees have protected time for such an activity, and therefore, it is much more manageable for him to just clear his schedule for teaching them. However, due to the shortage of senior doctors in his specialty, sometimes R15 experiences being the only senior on duty. In such an event, he has to oversee all the clinical and administrative issues concerning his patients, which leaves him little time for bedside teaching for his learners:

The challenge happens when you teach them the clinical teaching at the bedside. Now, if you have 40 patients, and you are the only senior, and at the end of the day, each family and the admin are expecting you to know everything about them [patients], to run their labs, to make sure the other teams are involved in their management. Then it becomes very difficult to stop there, take ten minutes or fifteen minutes, on teaching how to examine this particular system or that particular system.

The shortage in human resources in some specialties is either because of doctors going on leave in the summer, high turnover, or emergency cases where doctors have to attend to the patients immediately, as evident in the quotations below from respondents from different specialties. R10 said:

We don't have it—most of it actually depends on the shortage. There are periods where you have a lot of shortage like the summer time, and it will be very difficult to assign a specific time to give like a presentation or CME or general club for the resident.

R05 said, "So, in my own department, we had, actually, a severe shortage of staff, and right now, we are only one or two consultants instead of eight." And R10 said:

For me, time is an issue because we are short of staff most of the time, and the workload is quite large for us. We have to deal with so many limited resources to achieve the best service, so it can be challenging to balance the time.

And R12 said:

For the unit, we're on the unit most of the time with expatriates, so what happens, a typical one, we will get somebody who has just had minimal training, you will train him for two or three years, and then he'll go. Then you bring another one, and you start again from scratch.

The above respondent's quotations also reveal that the limitation of resources for teaching amplifies the challenge of the lack of protected time for teaching.

Nevertheless, the majority of the MoHH respondents found ways to teach and perform their educational roles. R07 was also, for example, able to balance her competing roles. She was able to add another challenge to the list of challenges that most respondents spoke about: her family responsibility after working hours. She confesses that such a family responsibility does not give her the privilege to work from home in her educational role. By extending her official working hours an extra two hours, she overcame all her challenges with protected time for her educational and clinical administrative roles. R07, a woman, said:

> I am the kind of person who leaves very late from hospitals, who leave comfortable. So I hardly leave before four. This is since I joined the Royal Hospital. First of all, I felt that time, the two extra hours, make me more comfortable at home.

In addition, R07 mentioned that she used the time to prepare her slide presentations for her teaching sessions. Was the preparation time for the teaching role one of the hidden challenges that most MoHH respondents were speaking about, in addition to the challenge of having time for the actual teaching session itself when needed? R07 said:

> [Teaching] is not an easy process, because you know, knowledge-wise you have to be quite confident. You need to do a lot of reading to prepare for the sessions, despite all the information, but still, you have to refresh and to go with the evidence-based medicine.

Another example was from R11, where he discussed that the hospital administration expected him and his colleagues to teach out of hours. From R11's experiences, he stated that most doctors do not like to teach outside the working hours. He explained that many of the MoHH doctors have an internal dialogue with

themselves and ask: what are the benefits of teaching in my clinical settings? He expressed an understating why some doctors have such an attitude for teaching outside the hours as many would believe if they do not benefit from such an activity, they prefer to spend the hours with their families. He also discussed that the benefit does not have to be a financial incentive for teaching only, but it could be looked at as improving oneself to become a better doctor and promotion at work. R11 below used the word "I" while speaking about what the other doctors that opt out of teaching ask, especially outside the working hours:

> Why should I waste my time in teaching? Teaching is hard work. Although you may be passionate, but it is not really easy work. It should not be taken easily because it's not easy to keep students motivated, to keep them interested in the subject. . . . So everybody doesn't want to [teach outside the hour]. They say I would rather give this time to my family, or I can spend some time with my children, rather than do the teaching.

Interestingly R11 believed that the lack of protected time for teaching has also influenced students/residents attitudes toward their learning sessions when they come to MoHH. He compared his current situation as an educator in MoHH with his time abroad as a postgraduate trainee with teaching responsibilities. When he was abroad, he had dedicated time to teach, which has never been the case in his MoHH setting. He believed that such a lack of dedicated time for teaching has influenced many teachers and students negatively. Those teachers believe that as long as they have not been given the time to teach, they are not accountable for not being involved in teaching. The teachers know that there are no consequences to not teaching, so attending scheduled teaching will make no difference. On the other hand, the students have learned the same from those that teach them at MoHH.

Hence, R11 said that students' lack of discipline to keeping to schedules and attending classes in the clinical setting is not considered compulsory and believed that teachers would only teach if they have time:

> Well, the major factor is the time factor. So, this year, we still don't have the concept of dedicated time for teaching . . . Nobody is going to ask me why I'm not teaching? Because I have not been given a dedicated time, so it's understood that I will teach if I have time. If I don't have time, I'll not teach. . . . So because of that, the students and the residents, they will always have a tendency to leave that aspect or get away with it [not attending scheduled session]. They will also come when they feel like it.

However, the challenge of working in a busy service provider hospital was not a complaint exclusive to MoHH as respondents from SQUH also expressed it. Therefore, S08, after so many incidences where teachers have not attended scheduled teaching sessions, questioned the Director-General of the Hospital about their status regarding being focused on providing healthcare services or teaching. Those doctors missed teaching sessions because they were attending to patients. Teachers feel overwhelmed in recent years with increasing numbers of patients that are attending the hospital. S08 said:

> Honestly, we go back to the same thing. . . . actually, I always talk to even the higher people, the DG: we need to define ourselves. Are we a service hospital, or are we a teaching hospital because we do service too much more than before. It's affecting, actually, our teaching. One of the difficulties we have.

S08 deals with such a change by having multiple plans for such a case. S08 gives students instructions that if he is late for a scheduled session, they need to wait for 15 minutes. Then, if he has not managed to deal with the clinical case in hand, he

will arrange a substitute to take his place as he has made prior arrangements if an emergency arises. Moreover, all SQUH teachers have been instructed to have plans A and B for situations when they cannot attend to their students because of their first duty: patient care. They also have informed their teachers that a warning letter will be issued if such incidents of not having plans will be issued and kept in their records as teaching is compulsory. Therefore, this report from S08 about a missed teaching session by the teacher is different from the MoHH missed teaching sessions. In addition, S08 questioned his administrator colleague about the increasing demand for more clinical work in his hospital setting. This view contradicts the view MoHH respondents had about SQUH as a teaching hospital.

However, MoHH respondents' individual effort to find solutions for the challenges they face to do their educational roles was due to the lack of support from their own workplace represented by their hospital administration and the Ministry of Health. R05, for example, talked about the Ministerial Directive mentioned earlier in this section about working hours (Ministry of Justice and Legal Affairs, 2016) and the difficulty of implementing it. As a leader in his specialty, R15 reported seeing the first draft for the regulation that governed the 2016 Ministerial Directive and observed that it did not specify that within those 56 hours per week, the doctors have protected time for teaching. He believed, as it stands, there is an expectation that those extra hours that they need to work will be to give healthcare services exclusively, and teaching is overlooked. R05 believed he needed the regulation to state that protected time for teaching within those extra hours, ensuring that everyone is accountable for their job responsibility, including the administrative leaders. So if the administration does not give those that teach protected time, they

can demand it, and when the administration provides protected time and the doctors do not teach, the administration can question their behaviour. R05 said:

> Unfortunately, the laws and regulations also are not really in favor of this [giving protected time], from many aspects. . . . By law, there's nothing. We've seen the first draft, and it's not really within that . . . it's not really written, it has to be written. And it has to be specified.

R07 interestingly stated that the hospitals' administration does not support her, nor do they know when doctors come or leave work from the hospital. She said that as long as they perform their clinical duties, she believed nobody cared if they come earlier than working hours or leave long after working hours. This respondent believed that administrators care about their clinical roles only. She offered:

> To say I receive the support it will be, really, difficult to say, because here nobody knows when you are coming when you are leaving, so it's only a personal kind of guidance. . . . And the support, we wish to have proper support at least from the hospital side, by giving us actually some kind of protected time for the teaching.

R13, however, spoke of a different kind of support that he wishes his hospital administration and the MoH will provide them with. He expressed the need to support them as doctors to attend international educational activities. Therefore, they need to be supported by giving them protected time in the form of paid leave to participate in such activities and/or be given financial support to attend those meetings as it becomes exhaustive financially and itemize. Such a reward, R13 believed, would motivate doctors to teach and learn about teaching:

> If you ask me then what there should be, of course, there should be some, as I said, even if it is protected time, an education sort of package there; those

who are teaching, who are definitely into teaching . . . should be protected for some financial support as well, it will do a lot I believe.

Moreover, another respondent did not expect after coming back from abroad that they still were not provided with protected time for their educational role. He believed that teaching in the clinical setting is fundamental for clinical practice, and without the dedicated time for teaching not only the students and the junior doctors but also the nursing staff, the whole clinical process will be interrupted. R05 said, "This is very surprising that we, as clinicians and teachers, we don't really have that protected time for us, which should be actually an essential part of the medical practice."

In support of the administration, R13 felt that they have progressed in supporting their educational roles compared to ten years ago as then administrators did not support their teaching. However, he acknowledged that the challenges that doctors are going through resulted from the transition period from being an institution focused on providing healthcare to one trying to merge care with education. Nevertheless, he and others acknowledge experiencing the progress toward supporting their educational roles.

Interestingly the above observation of change was initiated by establishing the Oman Medical Specialty Board (OMSB). As previously stated in Chapter One, it was established in 2007, and since it was established, it has conducted training for senior doctors to improve their clinical teaching skills to teach the postgraduate residents. This recognition of the role of OMSB in enhancing medical education in the MoH hospitals was not just echoed by MoHH respondents but also by the SQUH. The support was by providing training courses such as training of trainers,

leadership, and research methodology and getting the local senior doctors to participate in postgraduate curriculum development and reviews and assessment development and reviews. In addition, the OMSB is also responsible for providing continuing medical education points for attending accredited courses, workshops, seminars, and conferences. R13 said:

> [Administration] are definitely understanding, not merely the important, that it [our educational role] is essential and for that, they have to provide this sort of support and the trainers. They are definitely realizing that, and they are moving in that direction, I believe. That's visible now.

S09 said:

> I have access to so many courses which I can attend, so with the OMSB, we have train the trainer course. We have the certificate in health education course, which has several modules, which is the leadership, research, assessment, and curriculum. So I have access to those with reduced charge or sometimes actually free of charge.

> Furthermore, R06 also understood the constraints that hospital administrators had to deal with to provide the country's best healthcare services. Therefore, she believed that it was inappropriate for doctors to request the hospital administrators to find solutions for the challenges they face in their teaching roles. She stated that hospital officials had empowered each specialty department to be in charge, making the arrangements to meet both their service and teaching duties. R06 said:

> Well, hospitals are under a lot of pressure. They have also to meet their deadlines, and they have to reduce waiting lists. So to tell them every trainer also should have allocated time, it's difficult. They leave that to the department. The department has to make sure that the service is smooth, and at the same time you are contributing doing your job as a trainer.

Moreover, R16 was sure that his colleagues before him had attempted to request the administrators for dedicated time for teaching, but their attempt had yielded nothing. He further believed that as long as everyone was in a similar situation, they tolerated and understood the difficulties and the administrators' perspective. However, understanding the situation did not mean that R16 agreed with the administrators' decision not to provide the protected time for those who teach officially. Instead, he and other MoHH respondents expressed the view that the administrators needed to consider the positive impact of education on providing healthcare. This positive impact, they said, was by ensuring that they are up to date with their clinical knowledge and skills to teach their students and trainees, and hence the patients will benefit from getting thorough clinical examinations and the latest care. R16 also expected the Ministry of Health administrators to consider his hospital as a primary education centre focusing on teaching and research. Hence, such activities will improve healthcare quality by producing adequate numbers of senior doctors through training them. R16 said:

> [Administrators'] point of view [to balance between patient care and education] is . . . I'm not saying it's not valid, but at the same time, it's for the better future for the whole institution to have it as a recognized educational centre. It's for the reputation of the hospital as well.

Another aspect of the respondents in MoHH felt that they did not get support for doing research. R01 said, "To do research is a challenge, we don't get listening ears."

4.6 Chapter Conclusion

I presented in this chapter the Empirical and Actual domains of reality from the data gathered for this study. It contains the experiences, perceptions and

observations of the respondents. I will explore the respondents perceived current educational roles, their experiences of such roles, what enables them to carry out those roles and the barriers in performing them, and in addition, how they are dealing with those barriers. Moreover, respondents reflected on their own previous experiences, either on their undergraduate learning or the exposure to a western postgraduate environment. They further identified themselves as teachers and doctors by being exposed to a system that encouraged teaching and modelled it.

Chapter 5   Discussion and Interpretation of the Real

This chapter contains a discussion of the Real domain of the critical realist stratified reality. It is useful to reiterate the research question and the subsidiary questions on which this study is based.

Box 1: Research question and subsidiary questions

What drives doctors' commitment to teaching and to improving their teaching practice in clinical settings?

- What are the medical educational roles of doctors in Oman?
- What opportunities and challenges do doctors encounter in relation to their medical educational roles? How do they meet them?
- How might influences, such as faculty development, affect doctors' ability to embrace opportunities and deal with challenges in their medical educational roles?

In the previous chapter 4, I presented the 'Empirical and Actual domain' of reality after analysing the data collected, and I outlined the respondents' experiences, observations and events as demi-regularities that represented Stage 1 and Stage 2 of critical realist stratified reality (Figure 2 and Figure 3; refer to Section 3.1. in Chapter 3). Demi-regularities are patterns that have been identified as findings. They might be the reasons for or aid in predicting the reasons for an event, observation or experience. In Chapter 4, I studied the experiences, observations and events using the abduction method (Stage 2). However, this chapter includes a discussion of this study's findings using Stage 3 of the explanatory research model. This model is based on critical realism and used to find mechanisms/structures with causal powers. In addition, I explored the conditions (other mechanisms) necessary for causal

powers to present themselves as an event (Danermark et al., 2005, pp. 109–111; Fletcher, 2017). By using '"as if" reasoning' (Lawson, 1997, p. 43), I drew on my perception, beliefs and experiences to explore the Real domain of critical realism reality in the context of this study.

I will present Stage 3, the third layer of the stratified reality (Chapter 3, Section 3.2.3), represented by the event- and experience-causing mechanisms/structures, using retroduction, as presented in Chapter 3. I also examine how an identified mechanism might interact and act with other mechanisms at different levels, conditions and contexts. Ultimately, in this chapter, I attempt to understand what it must be like for medical doctors (study respondents) to embrace opportunities and remain motivated in the face of challenges when teaching in clinical settings.

As stated in the methods and methodology section (Chapter 3, Section 3.1.), critical realists question any claim made about reality on the premise that our knowledge of reality is fallible due to two factors: it is constructed by social actors, and social actors themselves perceive and interpret this reality (Archer, 1995, p. 177; Collier, 1994, pp. 23, 25; Joseph, 2001; Scott, 2005). In addition, they aver that there is a world out there independent of social actors (Archer, 1995, p. 177; Roy Bhaskar, 2011, p. 78; Collier, 1994, p. 62; Joseph, 2001; Scott, 2005). Therefore, what mechanisms or structures must exist to motivate doctors to teach and learn about teaching in Oman?

5.1 What Mechanisms or Structures Motivate Doctors to Teach and Learn About Teaching?

The study's respondents were selected from two government hospitals — the Sultan Qaboos University and the Royal Hospital — in Muscat, the capital of the Sultanate of Oman. The Sultan Qaboos University Hospital is under the Sultan Qaboos University, whereas the Royal Hospital is under the Ministry of Health. The demands for life-long learning for medical doctors imply an ongoing need for teaching support, which will proceed most effectively if most medical professionals take on the responsibility for teaching the next generation in clinical settings. Therefore, medical schools and postgraduate institutions training junior doctors should promote life-long learning skills as a curricula objective.

Many training programmes worldwide have recognised the importance of doctors as teachers through professional practice frameworks that state this principle explicitly, as examined in the literature review Chapter 2. However, many doctors see the business of teaching as something beyond and in addition to their primary role as clinicians. Formally stating the expectation may not be enough for doctors to internalise teaching as part of being a doctor without providing the support needed. When faced with challenges, doctors will react negatively, and, in practice, such expectations do not necessarily mean that all clinical medics will continue to adopt teaching roles. This impression was evident from the study respondents' experiences, especially those working in the Royal Hospital.

Motivation to teach and commitment to the role do not come automatically to all medical doctors in clinical settings. Medical education institutions find it challenging to incorporate this role into the professional identity of the doctors they

produce. It is even more difficult to understand why doctors commit to teaching and maintaining teaching standards. The findings in Chapter 4 revealed some of the mechanisms/structures that motivated the study respondents to teach, endure the attendant challenges and make the most of the opportunities to learn how to perform this role.

The administrative support provided to clinical teachers in the form of clear regulations and guidelines, resources and recognition of teaching roles significantly influenced the respondents' decision to teach and learn about teaching in their clinical settings. In addition, the people the respondents met in their learning journey made them want to teach. For example, some became teachers based on the influence of their role models, who were also teachers. Below is the researcher's theoretical redescription of the demi-regularities presented in Chapter 4.

5.2 Preconditions for a Culture of Medical Teaching

The late Sultan Qaboos announced the institution of a national university in Oman in the early 1980s. This decision, alongside a cascade of events, discussed later in this chapter, significantly affected medical education in Oman today. In this section, we looked at how one event in the Actual domain became a condition (other mechanism) in the Real domain to produce the necessary structures and, hence, have causal powers and indirectly motivate medical doctors to teach in clinical settings.

This study highlighted three events that have affected the motivation of Oman's doctors to teach and learn about teaching in clinical settings. The first structure is the founding of the first university in Oman, the Sultan Qaboos University (SQU), in the 1980s. In this study, this event is represented by the opening of the College of Medicine and Health Sciences (CoMHS) in 1986 and the

Sultan Qaboos University Hospital (SQUH) in 1990. The historical account presented in Chapter 1 illustrates the inception of medical education in Oman through the establishment of the CoMHS. The Ministry of Health (MoH) was involved with the CoMHS project from the early 1980s. As a result of this project, early social interaction between the MoH and CoMHS developed to establish a foundation for medical educators and prepare the clinical setting for teaching the college's future students. Due to this early involvement, the MoH prepared its existing clinical facilities (mainly hospitals) and all newly established hospitals and health care clinics to meet teaching and learning needs. However, the clinical settings were made fit for teaching and learning for not only medical students, as accommodations were also made for nursing and allied health students. Ibn Sina Psychiatric Hospital (opened in 1984) and the Royal Hospital (opened in 1987) are two hospitals in Muscat equipped with the latest structure and equipment as a health care-providing hospital and a teaching hospital.

While the medical college was only a project, it had the power to shift the MoH leaders focus. The shift was from being just a health care-providing institution to an institution that partners with the SQU to produce doctors and achieve its vision of providing an excellent health care system for all. As a result, many MoH medical doctors were sponsored to train in reputable Western counties such as the UK, USA and Canada, specialise in different clinical fields and return to Oman to teach CoMHS students. Once those doctors returned to Oman, they were seconded to an identified teaching hospital under the Ministry of Health to teach medical students.

Many of the role models the respondents referred to are from the class of doctors trained in the aforementioned Western countries. However, the MoH

respondents felt excluded from participating in the curriculum feedback and development or any curricula-related issues. I know the CoMHS involved MoH doctors, clinical teachers, and recognised their input during different stages of developing a new curriculum. However, the social interaction between the CoMHS educational leaders and MoH doctors was minimal, leading to MoH doctors feeling excluded from the significant contribution they could have made to the new curriculum. Furthermore, R12 said the new curriculum left the MoH doctors in the dark about when students came onto the wards to be taught. The doctors were expected to continue teaching however, did not feel adequately informed about what those students' knowledge and experiences. Could such exclusion and ambiguity cause MoH doctors to opt-out of teaching? This study found that lack of recognition and acknowledgement for their significant contributions were demotivators to teaching medical students.

The second structure is the establishment of the Medical Education Unit in the College of Medicine and Health Sciences at SQU in 2000, with the intention of teaching doctors about pedagogy. This unit is a key mechanism intended to produce change in medical education in Oman. Moreover, this structure (the unit) has enabled its members to create a medical education culture in the College of Medicine and Health Sciences. I was fortunate enough to have been part of this establishment from its inception. As a result, I have seen it develop and mature to affect medical education in all of Oman.

However, as a faculty development unit, its impact is limited to motivating MoH doctors to become teachers. Since its establishment in 2000, the unit influenced SQUH and few MoH doctors (those identified as teachers by CoMHS) to develop

teaching skills. As the unit had limited resources (human, financial and physical), and, as a consequence, it was only able to accept a limited number of those who applied for faculty development initiatives. In addition, SQUH doctors were prioritised. However, one criterion for accepting MoH doctors is attending faculty development activities conducted at CoMHS and completing specialty training with specialty certifications. However, this criterion also applied to SQUH junior doctors. Therefore, one might ask if the measure gave the impression that unselected doctors are not expected to teach.

In addition, CoMHS mandates that the selected MoH doctors to teach the medical students have to be senior specialists or consultants. These criteria cost the CoMHS many doctors who actually teach and support senior doctors in their teaching roles. R14 discussed the practice in his specialty. As the senior doctors' responsibilities grew, being involved in clinical and administrative duties and finding time to teach became a challenge. Therefore, the study respondents passed on teaching to their subordinates, as R14 stated below. That in itself was not the problem as medical students and residents are taught by nurses, other professionals and even patients (Bradley et al., 2006; Riesenberg et al., 2009; Şükriye Abay et al., 2017).

R14 said:

> Of course, when you become at a level where your responsibilities are, sort of, becoming more and expanding, then it is not easy to keep up with your momentum, giving the sessions. So, you tend to delegate to other junior doctors or junior colleagues who can replace you.

R05 pointed out that a shortage of clinical seniors led to entrusting junior colleagues with teaching medical students. They even went further by empowering

students with closely monitored self-learning solutions to meet the learning objectives. While junior doctors are engaged in teaching students or colleagues, they are not eligible for the faculty development activities offered by the Medical Education Unit. One might reasonably argue that these junior colleagues would believe they do not have access to training in teaching (which does exist), and do not consider themselves as 'teachers'. In addition, this state of affairs would 'send a signal' about the value of the contribution they are clearly making.

R05 said:

> So I delegate responsibility to other colleagues in this team. We let the students have the initiative; one of them actually took the initiative by exploring the opportunities for learning, which is massively available in this department, being a tertiary care hospital. And then they come back with their better suggestions and better solutions, which eventually we can settle down and rectify, or we guide them to where it's most appropriate.

However, R14 and other respondents expressed concern over passing on the teaching to those junior to them. This concern was mainly due to the lack of training given to those juniors as teachers. The criteria for attending faculty development excluded junior doctors from learning about teaching when they actually support busy senior doctors in their teaching roles. Many clinical departments at SQUH overcome this through their own training for junior doctors, senior doctors and their residents. To ensure the effectiveness of their endeavour, they put a monitoring system in place.

S08 said:

> Actually, from the college side, we sent our educators, like our tutors, to attend workshops, which the college does on an annual basis. Also, we really need the same workshops for our junior doctors who did not have the chance

to go in the department, almost anybody else, so we do actually like short workshops, like two or three hours, to teach the junior staff or even the senior who did not have the chance or to actually refresh those who have done it years ago. Other things, actually, this is for the undergrad, postgrad the same thing, we do the same thing actually for our trainees, encourage them to attend, we monitor that also, who attended, like every year we get a list, Dr So-and-so, which workshop you did not attend, so we send them an email, please attend this workshop this year.

This second structure has enduring power as a condition for those who teach and want to learn about teaching. The study respondents from both hospitals were internally motivated to teach, and they attended those faculty development sessions. These respondents are transferring the knowledge and skills they gained about teaching to other colleagues helping them with their educational roles. In addition, they started their faculty development initiatives within their clinical specialty settings to meet their needs for trained teachers. They conducted sessions for those doctors who were not recognised as teachers by the educational institutions and also not eligible to attend the faculty development activities. Furthermore, these local training sessions also benefited senior doctors who could not participate in the MEU activities and those who participated in the training before and needed refreshment.

The third structure is establishing the Oman Medical Speciality Board (OMSB) by a Royal Decree in 2006. The Minister of Health being the chairperson of the Board of Trustees implied that doctors from the Ministry of Health are an integral part of the medical education of the future medical specialist. Furthermore, the OMSB, as stated in its by-laws (2010, p. 3), set the scene for medical education in the country:

The mission of the Oman Medical Specialty Board is to maintain and improve the quality of medical care throughout the Sultanate of Oman. This can be achieved by developing and maintaining postgraduate medical speciality education and setting the professional and educational standards for the training and certification of medical and health professionals. [The] OMSB will strive to educate the next generation of leaders in medicine and lead with compassion, creativity, flexibility and steadfastness to meet the challenges of the new century and to fulfil our destiny of service and quality. (Oman Medical Speciality Board, 2010, p. 3)

[The] OMSB vision is to achieve excellence in postgraduate medical education, training, assessment and accreditation throughout the Sultanate of Oman. This will improve the knowledge, skills and experience of the medical and health care professionals. Through this, the OMSB has a vision to improve the health and health care of patients and the Omani community to achieve or exceed international standards and expectations.

The above mission and vision were published in 2010. They emphasise the value that Oman put on transforming medical practice in Oman. The social interaction between medical education leaders from SQUH, the Ministry of Health and medical doctors has transformed medical practice to achieve excellence in health care services. In addition, OMSB recognises those who have come back from North American training hospitals as official teachers. Many of them were made programme directors for the OMSB specialty programmes. Such recognition has empowered those with North American training over other doctors trained elsewhere, causing a feeling of discrimination and the inception of the 'Canadian Syndrome' in Oman. Most of the doctors running the OMSB were from SQUH, as most of them were North American trained. MoH doctors felt further excluded by the postgraduate training body.

However, despite the early involvement of the Ministry of Health in the establishment and the teaching of the medical students with SQU, MoH doctors felt that their efforts to support the CoMHS to graduate medical doctors are not appreciated and recognised. For example, the MoH respondents in this study want their hospital to be officially recognised as a teaching hospital, as if it is not a teaching hospital now. The MoH respondents believe that lack of support either for providing protected time for teaching and /or providing facilities and equipment to aid them in their teaching roles is because the MoH does not recognise them being in a teaching hospital. This view that their hospital has to be recognised as a teaching hospital by the MoH is a traditional view in Oman, where the organisation that employs you is the one that provides its employees with all their needs.

However, MoH respondents recognised the constraints of the MoH administration regarding providing education, in addition to their core business (health care). We might think that solution has been thought about and maybe even discussed, as evident when respondent R01 from MoH said the following:

> This institution don't only belong to the Ministry of Health. So really [the] Oman Medical Specialty Board and the University have to support [it]. [The] Ministry of Health is running out [resources], you know, they have to support [it].

From the above statement, we can conclude that teaching in the Ministry of Health hospitals is unsustainable in the long run; in addition, the quality of teaching effort will be affected if the educational institutions (SQU and OMSB) keep supporting the teaching contribution from the MoH doctors in the way they are currently doing so. Furthermore, this rewards system depends on which institutions the teacher belongs to as well. For example, all SQUH doctors obtain a fixed amount

as a monthly allowance, regardless of their teaching or their teaching involvement with the CoMHS. In comparison to MoH teachers, who will get a reward every six months, the amount of the reward also depends on the seniority of the doctor. This discrimination in compensation made participants believe they are not considered a teaching hospital. In addition, by only rewarding individuals recognised as official teachers or trainers, they created an unequal system, resulting in further dissatisfaction.

The MoH respondents are not sure of the real reasons they have been discriminated against, even though the effort and time they believe they have put into teaching is equal, if not more, than SQUH doctors. In addition, CoMHS as a structure had the causal power to initiate the MoH endeavour to improve its hospitals further to accommodate the CoMHS medical students.

5.3 The Past Experiences Before Becoming Senior Doctors

Medical doctors' past experiences play a major role in what they become. It shapes their educational identity and is an integral part of their professional identity. Some doctors will go back to their childhood experiences to either relate their experiences interacting with their parents and extended family or the broader community through social interaction at schools and the wider community. Furthermore, the educational identities of medical doctors are shaped by their experiences during medical school. Here, they either idealised the individuals they interact with or chose to keep away from some people. Their teachers, for example, either made them love or decided to keep away from an area of specialty. By choosing or not choosing, their journey in the formation of their professional identity begins.

However, identity formation is a fluid process, one in which junior doctors explore their options by joining a community of specialisation or combining it with education or opting out and becoming medical administrators. This study revealed the impact of role models and medical speciality training culture on doctors' motivation to consider teaching roles. Below, I address two factors from the critical realist perspective by using retroduction to explore what motivates doctors to teach and learn about teaching in their clinical settings in Oman.

Specialty Training Culture

The respondents' postgraduate training in clinical environments promotes teaching as the norm and supports junior doctors in their clinical and trainee teaching roles. Most find this career stage the most influential part of their journey as they mature and become teachers themselves as an outcome of such an experience. Chapter 4, Section 4.3. shows that all respondents whose residency training was outside Oman used the structured residency programme to explain the reason for being motivated to teach, as if this external motivator elucidates their motivation. These structured curricula provided the learners with opportunities to teach and learn about teaching.

In addition, this supportive culture transformed those respondents' identities from being just medical doctors into becoming medical doctors and clinical teachers. Furthermore, this supportive culture reproduced 'new' recruits as clinical teachers. Therefore, the above reflection, which these respondents made during residency training, is the most compelling reason they believe contributed to their motivation for teaching today. In addition, those respondents' sociocultural interactions with others during their residency or fellowship training as junior doctors in learning and

teaching, promoted an environment that made teaching a normative choice in their daily clinical interactions.

Role Models and Time Constraints

Role models' impact on learners' identity in medicine has been reported extensively, as seen in the literature review (Irby, 1994; Kilminster & Jolly, 2000; Martin et al., 2014; Sutkin et al., 2008). The findings reported in Chapter 4 demonstrated the reflection of senior medical doctors about what influenced them to become clinical teachers and learn about teaching. These findings demonstrated similar influences of role models on their identity as medical professionals and as clinical teachers. The study respondents also reported that undergraduate role models influenced their choice of specialty, whereas the postgraduate role models influenced them as professionals and teachers. Overall, these study's findings regarding the demi-regularities are in accordance with findings reported by studies of what motivates medical doctors to teach medical students and junior doctors in training (Budden et al., 2017; Burgess et al., 2015; Cochran Ward et al., 2013; Haider et al., 2016; Passi et al., 2013; Passi & Johnson, 2016; Wright et al., 1998; Yazigi et al., 2006). In addition, in this study, I also identify the difference in perception about role models between the medical students and the junior doctors in training (Jung et al., 2021). The study's respondents reflected on their early days as learners and did not perceive that their teachers influenced them more than their teachers during residency training, if at all.

The respondents of this study were influenced by a teaching and learning promoting culture. Their teachers became their role models, mentors and inspiration to teach and learn about teaching. This experience made them feel that teaching is

part of being a medical doctor. It was a competency that all medical doctors must meet before qualifying a form for their training programme. The belief that teaching was an integral part of their medical profession and identity was confirmed by professional standards frameworks such as the Canadian Medical Education Directives for Specialists (CanMEDS) Framework (Frank et al., 2015), the UK professional standards framework and the Academy of Medical Educators (Academy of Medical Educators, 2014; The Higher Education Academy, 2011).

The earlier experiences with teacher-centred learning and teaching (during the undergraduate years of the respondents in this study) had conditioned them with perceived 'transmissive' ideas and thoughts about learning and teaching. However, in their new learning environment (the postgraduate clinical setting), teachers' social interactions with them as learners influenced how they reflected on this new learning process, as those clinical teachers used strategies based on the sharing and building of knowledge rather than just 'giving and receiving' it. Hence the respondents developed confidence as learners as a result of their teachers' acts of kindness. Moreover, those teachers now are role models, and their actions have influenced them to reflect that one of the doctor's roles is teaching. This reflection of the respondents made them internalise teaching as the norm and hence become intrinsically motivated to teach by an extrinsic influencer, their role model.

The socio-cultural interaction of such an education-friendly clinical setting has promoted a positive interaction between the senior and the junior doctors. Enjoyment of teaching resulting from such interactions with the junior doctors ideationally reshapes them, helping them develop a sense of duty on teaching and how to teach future doctors. The existing Western curricula, in this case, has

conditioned doctors into enjoying teaching to produce such interactions. Thus, these doctors transformed to become teachers as a result of this sociocultural interaction. Therefore, in this study, I collected context promoting such a desired outcome by educational institutions (the SQU and OMSB) with close collaboration with the health care providers, especially the Ministry of Health. Such a collaboration is at a central level to provide policies that initiate change at a local level. Implementable policies provide opportunities for senior and junior doctors to interact with and improve teaching and learning and, inevitably, patient care.

The social interactions that the respondents had during their time as residents in learning exchanges with their senior colleagues have come, in many cases, to influence them to adopt similar teaching approaches with their own students. With a structured curricula, the respondents had clear goals of what must be achieved at each stage of their training. In addition, their teachers guided and externally motivated them to learn about teaching. As residents, the respondents of this study became impressed with their clinical teachers. Their teachers' clinical knowledge, teaching skills and how well informed they were with their educational curricula made an enduring impression upon the respondents as when they were junior doctors. As a result, those respondents idealised their teachers and were influenced to make informed decisions and choose to attend formal teacher training courses. Attending such courses made them reflect and have an internal dialogue as to why their teachers were the way they were. As a result, they now internalise the need to improve their teaching to be like those teachers that now exist as their role models and influencers of what they will become.

Historically SQU Hospital was established to serve the College of Medicine. Therefore, it was not surprising to find respondents from SQUH believing that teaching is central to their job. The new medical doctor supposes that those from any educational institution are teachers. Such a supposition has made new doctors — those who have been trained in teaching as being the norm — and, therefore, there was no internal conflict when they faced any challenges when teaching.

However, respondents to this study remain unsure about the residency programme in regards promoting a culture supportive of teaching. The respondents were uncertain if their effort to promote resident teachers were structurally supported within Oman's residency training. Respondents' uncertainty in this study is due to a lack of policy regarding financial rewards for residents as teachers of medical students from the College of Medicine and Health Sciences (CoMHS). They even suggested that there exists a lack of clear goals regarding residents as teachers form the residency programme itself. However, in the OMSB Residents Manual (Oman Medical Speciality Board, 2013, p. 77), Section 14.1.1, the following is stated:

> The Oman Medical Specialty Board will not offer a completion of training certificate unless the Resident completes the Core Program Curriculum and all other requirements. The Core Program Curriculum includes the following: . . . 7. Resident-As-Teacher.

Furthermore, resident teachers' value was further emphasised in the Quality Assurance Training Standards for Residents (Oman Medical Specialty Board, 2015). Teaching competencies is a requirement to be achieved during the OMSB residency training. Therefore, it is essential that residents be given the opportunity to develop their teaching skills. Under Section 7A.9 Practice-Based Learning and Improvement (Oman Medical Specialty Board, 2015, p. 64), the following is stated:

7A.9.1 The Program must ensure that there are opportunities for Residents to develop effective teaching skills by teaching junior colleagues and students, as well as through conference presentations, clinical and scientific reports and patient education.

The standards also emphasise that teaching abilities 'must' be assessed to improve teaching (Oman Medical Specialty Board, 2015, p. 83) by stating that:

8A.15.2 The Residents' teaching abilities must be assessed in multiple settings, including written student evaluations, direct observations at seminars, lectures, case presentations and other settings.

These guidelines are in the Real and Actual domains of reality. However, this study's participants have not observed or experienced it. Why? what must be the reason for the world to be experienced like this and for this guideline not to be experienced by the respondents of this study? Suppose we are to argue that, during structured residency training, the trainee teachers' ways of teaching gave the residents the confidence to want to teach. Were residents also allowed to attend the teacher training workshops? The evidence from this study shows that learners contemplated and reflected on the way they were taught. Therefore, a structured curriculum where pedagogy is valued as part of the organisational culture also shows organisational commitment to teaching and learning. Hence, it provides support for good educational experiences where the next generation of role models feel valued and motivated to carry on the role of teaching.

Educational institutions' policies that treat teaching as an everyday part of the culture to produce teachers have an emergent property. This property helps trainee doctors reflect on how they were trained, how their teachers taught them and how

they teach their juniors. This is the norm in medicine. Therefore, teaching is part of the role and responsibility of doctors.

The doctors reflected on their own training time in their own environment and were taught better because of how they were being taught. This experience with time has given them the confidence to improve their teaching.

Being given the opportunity to teach and attend educational development courses to learn how to teach is another mechanism needed to help the doctors interact with their environment and community. Such an experience, being amongst other professional learners, would have a causal power to transform a resistant doctor into a confident, willing and motivated doctor to teach in the clinical setting.

The interaction between the doctor as an agent who makes choices is influenced positively or negatively by the Ministry of Health Hospital culture, with emergent properties inherited historically from previous management and agents. For example, I mentioned specialty (A) culture in Chapter 4, Section 4.4 as encouraging and welcoming for junior doctors. Furthermore, the junior doctors experienced a sense of belonging when their seniors taught them to be their equals. This experience of the culture of specialty (A) motivated the respondents to teach and learn about teaching, as was done to them when they were learners themselves. In contrast, speciality (B) culture did not advocate juniors to be members nor support learners in their quest to learn. Such an 'exclusive club' culture is fearful and threatening, and junior doctors feel unwelcome as learners. The influence of the hospital culture on doctors' interactions with one another was further intensified by the lack of a policy for teaching and research in the Ministry of Health hospital setting. This influence has created a 'phantom emergent property'. So the act of not having a clear policy

becomes a policy. This experience, compared with SQUH clinical teachers, who did not even think about if they had to teach or not, identified teaching as part of their role in such an institution. So having the structural emergent property that this is a teaching hospital attached to a teaching institution and therefore by default they are affiliation to CoMHS means it was the norm to teach if doctors are in this institution.

The Need for, and Value of, Formal Educational Development Courses

The existence of training opportunities for all doctors (junior and senior) to attend and share their teaching experiences (challenges, opportunities and innovations) will ultimately improve their teaching skills. Such acts signal the value accorded to teaching within an institution, thus encouraging teaching. In this study, the respondents' socio-cultural interactions with their trainers and other participants of the educational development course led the respondents to reflect on their own and others' methods of teaching. The sharing of experiences with other course participants and the following reflection that they make on their own might have different outcomes. Thus, the respondents reproduce (duplicate), elaborate (refine) or transform (remodel) themselves to become the role models expected from them as professional doctors and teachers for the next generation of clinical teachers.

Despite the success of their previous experiences as teachers, there still exist some room to improve their teaching methods. On experiencing a culture that promoted teaching and learning about teaching, the trainee started an internal conversation asking themselves, why are my new trainers exceptional teachers? On reflection, the answer appears to be their commitment to a scholarship of teaching and learning, partly as manifest by participation in formal teaching courses.

The respondents' postgraduate training clinical environments promoted teaching as the norm and supported them as junior doctors in their clinical and trainee teaching roles. Most respondents found this stage in their career to have formed their identity as clinicians and teachers. As I showed in the findings, Chapter 4, Section 4.3., all respondents whose residency training was outside Oman spoke about the structured residency programme to explain why they were motivated to teach, as if this external motivator was the explanation for their motivation. These structured curricula provided the learners with the opportunities to teach and learn about teaching.

In addition, this supportive culture transformed these respondents' identities from being just medical doctors into becoming medical doctors and clinical teachers. Furthermore, this supportive culture reproduced 'new' recruits as clinical teachers. Therefore, the above reflection, which those respondents made during residency training, was the most compelling reason they believe contributed to their motivation to teach today. In addition, those respondents' sociocultural interactions with others during their residency or fellowship training as junior doctors in environments that promoted teaching and learning made teaching a normative choice in their daily clinical interactions. In this study, I identify role models as a mechanism. Role modelling is nothing other than a way of acting as an agent. Role models exist in clinical settings, and, under appropriate conditions, it is performed as long as the properties that account for it continue. Furthermore, learners can emulate role models' attributes and traits to reproduce them if conditions are appropriate.

Those clinical role models showed passion not for their clinical duties and educational roles but also for their learners. Their ability to inspire their learners

through their capacity to affect others around them shows enthusiasm for what they do. Thus, the role models have the ability to shape the next generation of doctors and consequently the next generation of clinical teachers. Furthermore, those clinical teachers and role models empower their learners to choose their speciality as undergraduate students and love their chosen speciality as postgraduate trainees. Such empowerment is gained by being recognised and appreciated for their contributions to clinical practice.

Furthermore, those respondents trained as trainee doctors in the North American medical education system felt that those university-based clinical-educational environments empowered them to be what they are today. In addition, such an environment empowered them as learners and future teachers by feeling rewarded internally and satisfying them as learners through engagement and the way those role models interacted with them as equals, which made them internalise such an extrinsic motivation and consequently motivated them to be involved in teaching on their return to Oman. Hence, role models may potentially be reproduced as a causal mechanism to produce doctors who are intrinsically motivated to teach others in clinical settings. However, this mechanism activation is contingent on other mechanism/s, structure/s and/or conditions needed to replicate the event, teaching.

For example, in this study, I clearly defined educational roles as a structure that has revealed itself to have the causal power to motivate doctors to teach. In this study, teaching roles and responsibilities were similar to what has been reported in the literature (Chapter 2, Section 2.2). However, it was evident from the beginning of the data collection that the respondents were not aware enough of the educational roles that educational institutions have defined. This inability may be translated as a

lack of clear education roles for those clinical teachers. The absence of clear policy or guidelines for the clinical teachers' roles did not influence the teachers negatively; however, it presented itself as a challenge for the Ministry of Health Hospital (MoHH) respondents. The MoHH respondents believed that administrators did not support their role as teachers because their obligation is to mainly provide a health care service. Supportive administrators are the condition (other mechanism) that clinical teaching role policies or guidelines need (if available) to motivate doctors to teach.

Furthermore, the respondents from the MoHH highlighted the power of clearly defined roles or policy/guidelines in empowering them as clinical teachers. For example, to be recognised for their teaching roles would logically give them the right to access resources that would be needed to fulfil that role. In addition, recognition of their teaching roles by educational institutions and the Ministry of Health would give them a sense of belonging and engagement in reproducing tomorrow's doctors and teachers. This sense of belonging would give them satisfaction and hence motivate them internally to teach. This recognition was an incentive to continue to teach and learn about teaching. However, recognition by being financially rewarded for their teaching contributions was a demotivator. Rewarding here is working negatively due to the discrimination in pay for teaching between the two study sites. Such external motivators have a negative impact on the continuity to teach; this is due to differences between the two sites in the way in which this additional pay is calculated and allocated. Such gaps can cause doctors to decide not to continue to teach in the presence of other unfavourable conditions, such

as the lack of officially allocated time for teaching, lack of resources and a culture analogous to social hierarchy.

In addition, many doctors consider working in a teaching hospital to be favourable because such hospitals promote research and have state-of-the-art clinical equipment for diagnosis and treatment. However, although documents showed that this MoHH hospital was a teaching hospital, the MoHH doctors still believed the lack of support for their educational roles was due to the lack of official recognition by the Ministry of Health of their hospital as a teaching hospital. Such an erroneous perception impacts upon the doctors to choose to continue to teach and learn about teaching. Stating that a hospital is a teaching hospital without providing the support for those doctors who teach to perform this role competently is a demotivator when challenges arise. Nevertheless, being called a teaching hospital gives the hospital higher regard than a nonteaching hospital in this context, and doctors from the MoHH will opt-out of teaching if the conditions are unfavourable for teaching.

5.4 Empowerment and Impeding Factors

The respondents' past experiences have set the scene partially for their new experiences in their new clinical setting. Medical students begin with the expectations of being given knowledge in a classroom setting from their early years of schooling and during the preclinical experiences. These earlier experiences of teacher-centred teaching and learning have conditioned them with perceived ideas and thoughts about learning and teaching.

However, in their new environment (the clinical setting), those students' social interactions with their teachers influenced how those learners reflected on their learning process. As their clinical teachers use strategies to engage them in the

teaching and learning process on this journey to become medical doctors, they begin to learn that they are in the process of sharing knowledge rather than just receiving it. Depending on their teachers' behaviour, those students either develop confidence from their teachers' acts of kindness or doubt their abilities as learners. The influence of a teacher on the learners prior to them becoming doctors can result in two outcomes: The first is whether those teachers produced doctors who desired to replicate their teachers' teaching and learning methods and behaviours and further build on them to teach their own students/learners. In contrast, the second outcome is whether those teachers produced doctors that totally dismissed how their teachers' taught them and behaved with them, and they go on to change their teaching and learning methods with their own students/learners.

As medical students graduate (now junior doctors) and join the workforce, they relate to their colleagues differently (the medical students junior to them). It is here that most medical doctors remember they started their teaching journey to those junior to them. Some feel the obligation to teach the students as they once were taught by the junior doctors. This extrinsic motivation stays active as long as the conditions are favourable and cause no stress to those junior doctors. Those Omani doctors soon also become learners again by joining a residency programme. These experiences are either in Oman or happen abroad. We have seen above the influence of the culture and the role models on them, fostering or discouraging teaching identities. Let us look below at the journey once those motivated teachers become senior doctors and clinical teachers.

I have discussed earlier that SQUH doctors view being a teacher as a default role. This role is shaped by being in an officially recognised teaching hospital. Those

SQUH doctors who are trained in a teaching-promoting culture had similar experiences to the MOHH doctors, where teaching was a normal role for doctors. In addition to their past experiences, the SQUH senior doctors are influenced by the name of their hospital (the Sultan Qaboos University Hospital), as the name implies that teaching is one of the core businesses of this hospital. They also get paid for teaching the medical students — a monthly allowance added into their salaries. Furthermore, those doctors, while in training, know they will come back and teach. Hence, they have internalised the purpose of teaching and the reason for learning about teaching while residents.

Furthermore, those doctors at SQUH are granted time for teaching and encouraged to attend faculty development initiatives to improve their teaching skills further. Time and opportunity have also been given for developing their teaching skills. Therefore, those senior doctors have the initial motivation factors to teach which, in Chapter 4 (Findings), I have represented as the demi-regularities (Box 2). Furthermore, those factors are enhanced by conditions found in their current culture. Thus, those doctors initially internalised all the factors that have encouraged them to think about teaching and their educational roles, and then they further internalised those roles by having a supportive environment and clinical-academic culture that enabled them to teach and learn about teaching. All doctors were given financial rewards as a monthly allowance for teaching, and extra funds were granted to learn about teaching, and, therefore, they felt recognised for their teaching contributions, on top of their primary role as clinicians.

The MoHH doctors, in contrast, were no different in their initial motivational factors for teaching. Moreover, they had similar experiences as the SQUH doctors in

regard to role models and had positive experiences in their learning environment, which encouraged teaching to be part of their roles as doctors. However, the lack of support that they had experienced as clinical teachers for their educational roles meant their motivation to teach was also affected. In contrast, SQUH respondents associated themselves with Sultan Qaboos University, they internalised their educational roles as default, and, consequently, they considered teaching the norm.

Box 2: Factors influenced doctor to teach (demi-regularities)

Respondents' passion/inspiration for teaching came from the following:

- Finding joy in passing on their knowledge and helping others to achieve their goals
- Being inspired by their teachers and aiming to become role models themselves by fostering natural altruistic tendencies
- Being encouraged by the cultural value of reciprocity to give back as a reward to their community 'The art of giving'
- Feeling valued as teachers by stakeholders (their hospital, the educational institutions, their colleagues, their students and their patients)
- Having the moral commitment to maintain the cycle of excellence in teaching
- Experiencing the training environments
- Having the satisfaction of seeing their students and residents learn and accomplish their dreams and become an improved version of themselves
- Wanting to attract others to join their speciality
- Wanting to update themselves and learning more by teaching (reward)
- Having the sense of duty and responsibility to teach medical students and junior doctors--being a doctor means being a teacher
- Making contributions by handing down professional values, attitudes and behaviours from generation to generation

The MoHH respondents, in contrast, had two issues that inhibited them from internalising all the motivational factors to encourage them to teach. The first such issue is that they did not officially consider their hospital a teaching hospital, as presented in Chapter 4, Section 4.1. and 4.5. The respondents' evidence for such a

belief came from the MoH leaders' lack of support for their educational roles (presented in Chapter 4). Lack of protected time (Section 4.5), lack of teaching allowance (Section 4.1 and 4.5), lack of funds and time to learn about teaching (Section 5.4) were among the top demotivators for teaching. In addition, the lack of clear educational roles (Section 4.1) and the lack of knowledge of what to teach (Section 4.5), especially with the undergraduate curriculum, made them feel overwhelmed and unclear about what was expected from them as clinical teachers. Such a lack of proper communication provided impediments and made the clinical teachers feel insecure about themselves, as if they were at fault.

Furthermore, they felt discriminated against when comparing themselves with SQUH doctors, whom they believed had fewer clinical duties than them, but they were granted the time and the funding for their educational roles. It did not matter whether or not this perception was correct. What mattered was that they appeared to believe it.

One of the major mechanisms as a demotivator that has been identified in this study is the lack of recognition for doctors' teaching roles. The MoHH doctors believe that all SQUH doctors are recognised for their teaching contributions with academic titles, which is not the case. Only those SQUH doctors whom the University directly employs have academic titles. No other doctors get honorary lecturer status as recognition and acknowledgment for their teaching contributions. For SQUH doctors educational roles have also not been made explicit, but they have been acknowledged and rewarded as teachers. The lack of recognition for their teaching roles by the educational institutions or the MoH made doctors feel that teaching is not valued under any circumstances or conditions. This lack of

recognition made them feel discouraged from continuing to teach. Therefore, it is not surprising that MoHH doctors opt out of teaching to focus on their primary role as clinicians, a role that the authorities recognise. We need to acknowledge that it is not the actuality of the circumstance that is important, but rather what the doctors believe to be the case.

5.5 Conclusion of the Discussion of the Real

Using a critical realist explanatory model approach in this study to analyse the data helped with not only exploring the experiences and observations of an event or a phenomenon but retroduction was also used to explore the structures/mechanisms that have causal powers producing an event that may or may not be observed and may be experienced or observed (Chapter 3, Section 3.1).

The most striking finding of this study was the absence of clearly defined standardised educational roles for doctors involved in clinical teaching. For those teaching undergraduate students, the educational roles were not clearly specified, and, therefore, their values were not recognised. I found out that the 'Roles' document never existed, and what the respondent spoke about to be their written roles was actually the module's study objectives that the students were expected to achieve, as respondents of this study pointed out. Moreover, respondents understood their responsibilities in the OMSB trainers manuals to be their educational roles. Consequently, the absence of clearly defined educational roles has influenced clinical teachers' experiences and teaching satisfaction. Ultimately, having roles and responsibilities and well-defined supports increased the efficiency and effectiveness of the organisation, the health care providers and the educational institutions.

Another unexpected finding of mechanisms is that time was not provided for teaching activities. However, administrators at the MoHH have been given autonomous decision-making for those who teach to organise the protected time among themselves within their respective clinical departments. In addition, the Ministry of Health has officially approved them to teach and recognises that this particular hospital is a teaching hospital. However, protected time was not considered one of the main mechanisms for motivation to teach and learn about teaching. Protected time in this study is Real, and it acts as an 'other mechanism' that critical realists call 'conditions'. The lack of an official policy for 'protected time' in the Ministry of Health dissatisfied the doctors in this study. Satisfaction is the main mechanism in this study, where agents internalise extrinsic motivation, such as being given protected time. The reason protected time as an extrinsic motivator becomes internalised is because it affects the well-being of the doctors, and satisfaction has been associated with well-being.

The respondents' teachers (role models), especially when they were residents, had a major impact on them and influenced their desire to teach and take on the educational roles in their current clinical settings. Based upon a historical accumulation of exposure either to positive or negatively influential role models, the doctors reflect at different stages of their journey on their experiences as students, residents and later as teachers. This reflection is found to be what moulds the learners' behaviours to interact or react to their role models. The findings of this study reveal that role models have a significant role in forming the educational identity of the clinical teacher.

Furthermore, as a faculty developer, this study's presentation of the 'Real' gives me, our colleagues in faculty development and those in planning and management, both the health care providers and the educational institutions, insight into how clinical teachers process their multiple roles. This study shows that the process is complex and we need to support those teachers to be role models, not just in the clinical profession but also role models for their educational profession. We need to empower our clinical doctors to be able to perform their multiple roles to improve learners' experiences and improve the health care system provision. We need to provide them with clear roles and responsibilities and recognise their effort in producing the next generation of doctors and educators. All clinical doctors who are interested in teaching should be provided with equal opportunities, regardless of which health care institution they belong to as clinical doctors.

Some of the mechanisms in the domain of the 'Real' affecting the doctors' teaching and learning about teaching include organisational structures that influence who may or may not teach or learn about teaching. Some doctors, for example, have opportunities for teaching, access to funding or conditions of service that favour teaching, or they can draw on supportive networks or policies at institutional levels. However, these structures, mechanisms and conditions may either encourage or discourage doctors from thinking of themselves as teachers. Furthermore, these mechanisms may enable or block those clinical teachers' engagement in teaching or support student learning in the clinical setting. Such mechanisms are, for example, the definition of roles, institutional organisations, hierarchies, policies, systems of funding, human resource allocations and/or the undergraduate, postgraduate and/or educational development curricular structure (see *Figure 2*).

These mechanisms are seen to interact with some other mechanisms that are understood as mechanisms in the domain of culture (the Real; Archer, 1995). These cultural mechanisms include existing ideas, values, beliefs, or theoretical resources that may or may not be available to the doctors who teach in their clinical setting. In addition, we have social actors (agency) who relate to these personal mechanisms, which activate or mediate teaching or learning about teaching events, or to corporate agency operating (collective authority) within communities of practice in the clinical setting (Archer, 1995). Examples of this would be the clinical teachers' goals, intentions, concerns, interests, desires and decision-making. Agents' reflexivity and autonomy play an important role in the final outcome of any action. We might find that when clinical teachers (agents) reflect on entities or objects in the cultural domain, such as reflecting on theories, cultural values and attitudes; doctors can actively seek to participate in teaching and learning about teaching in the clinical setting at the level of the actual or not to choose to do so. On the other hand, the personal mechanisms relate to the collective authority operating within the communities of practice in hospitals, the Ministry of Health and/or the universities to which they belong.

In the same way, reflecting on structural mechanisms, like the availability of funding, professional time for teaching, good mentoring or supervision system, can help one act and take on teaching responsibilities. We can conclude that the interaction between structures and mechanisms in the structural, cultural and agency domain help the teaching and learning about teaching emerge.

Archer (1995, p. 217) suggested that distinctive power relations and conditions, events and experiences that individuals encounter are shaped by

'situational logics' or specific structures formed by the institutions from the interactions between the structural and cultural mechanisms.

Chapter 3, Figure 1, shows a list of mechanisms that might influence medical doctors to teach or not in the clinical setting. These mechanisms can be structures such as hierarchies that can be external (at a ministerial level or from the educational institutions) or internal (within departments or the same hospital). Some doctors may have access to funding to attend educational workshops and courses or may experience conditions of facility that favour teaching output. Furthermore, those clinical teachers can draw on supportive networks or policies at their hospitals, educational institution and governmental levels. These structural mechanisms can either encourage or discourage the conceptualisation of teaching in the clinical setting. Structural mechanisms interact with cultural mechanisms such as ideas, values, beliefs or theoretical resources that may or may not be available to the medical doctors in their clinical, educational settings or communities. Personal mechanisms are related to the agency of social actors who initiate or facilitate educational events or to group agencies working within communities of practice in the hospital, the educational institutions or professional societies. Reflexivity plays an important role in the individual agency (Archer, 2000, p. 11). Archer explained reflexivity as an 'internal conversation' the agent has with the self when contemplating or deliberating (Archer, 2000, p. 194). Medical doctors are in a continuous thought process with 'self' when facing teaching challenges in the clinical setting, such as when their clinical roles demand them to abandon a teaching obligation or when an opportunity arises to improve their teaching practices. However, their clinical obligation due to a shortage of specialists means they have to

decide not to take it. These internal conversations are seen as either enabling, in which the doctors decide to continue teaching, or constraining, in which the doctors decide that teaching is not worth the stress they are going through and hence opt out of teaching.

Chapter 6   Conclusion and Recommendations

In this chapter I will present some recommendations based on the findings of my research which I wish to communicate to my colleagues responsible for the education and support of medical doctors in Oman. I used inference based upon the critical realist retroduction analytical method to address the questions 'What must the world be like for those doctors who teach in clinical settings to experience those challenges and deal with them? Furthermore, what has driven them to find ways to improve their teaching skills?'.

As a faculty developer and not a medical doctor, having interacted with junior and senior doctors through my job, I began this research because I had the impression that doctors opted out of clinical teaching in the Ministry of Health (MoH) Hospitals because most of them doubted their abilities to fulfil the role of teacher speciality in the clinical setting. Therefore, doctors found their educational roles to be challenging. I further speculated that these challenges were because of their competing roles and lack of time to effectively prepare themselves and carry out their educational roles effectively. These anxieties about their abilities to discharge their teaching commitments adequately would cause them to favour their clinical work, with which they felt more secure and seek to avoid teaching duties where possible. Suppose the reluctance to teach was based on concerns about competence in that area. In that case, the problem should have been addressed by educational development efforts directed towards raising levels of competence, and thus confidence, in the teaching role. However, while traditional 'faculty development' input provides colleagues with opportunities to expand their pedagogic skills and

maintain a scholarship of teaching and learning, this emerged as being far from the whole story.

The study's retroductive methods of inference revealed that the following mechanisms identified in this study tended to generate the events of this study: doctors' motivation for teaching and learning about teaching. Mechanisms such as lack of policy for clinical teachers' educational roles, lack of policy for protected time for educational roles, lack of recognition as teachers by the MoH and the educational institutions, and the discrimination the MoH doctors experienced in comparing themselves to the Sultan Qaboos University Hospital doctors mean that they found this situation professionally and emotionally unfair.

While a lack of clear educational roles policy does not inevitably bring about uncertainty and dissatisfaction, there appears to be a strong tendency in this direction, with an associated risk that those colleagues will seek to opt out of teaching.

Similarly, the lack of a protected time policy for doctors' educational roles, as examined in Chapter 5, does not always bring about the feeling of being threatened, unstable, and incompetent in their clinical teaching roles, but always this mechanism tends to. Consequently, when this mechanism does manifest itself, the doctors internalise it as a failure on their part (a perceived inability to discharge the sum of their responsibilities in the time that they believe has been allotted to them) and become unsatisfied with their role, demotivated, and they opt out of teaching.

Furthermore, the lack of recognition as teachers by the MoH and educational institutions is another source of demotivation. Those colleagues who feel undervalued and unappreciated will seek to opt out of teaching again.

Moreover, the experience of professional discrimination and other workplace emotional stressors may lead to burnout and a consequent withdrawal from teaching activity as a means of coping.

Recommendations

Based on the findings of this research, I would like to make the following recommendations:

1. **Establishment of a national standard for Oman's medical (health care) teachers:**

The Oman Medical Speciality Board (OMSB) needs a national standard for medical/health care teachers in collaboration with all stakeholders. Such standards may align with the UK professional standards framework and standards from the Academy of Medical Educators (Academy of Medical Educators, 2014; Frank et al., 2015; The Higher Education Academy, 2011).

2. **Establishment of a unified system for resource allocation, funds, and rewards for clinical teaching:**

A transparent and well-communicated funds and rewards system for clinical teaching will provide the basis for developing trust between the clinical teachers and the administrators, remove any ambiguity from the compensation system, and provide clinical teachers with equal opportunities.

3. **Establishing a fellowship program in medical education:**

Those interested in taking on more leadership and research roles in medical education should have the opportunity to join a fellowship program established by OMSB in collaboration with stakeholders. Such a program should also be aligned

with a well-defined and recognised pathway to enter a career in medical education (Tekian, 2014).

4. Reformed clinical environment to promote teaching:

Ministry of Health and its hospitals should promote an academic culture to cultivate teachers' professional identity. Such cultivation would transform the perception that only some physicians are 'doctors who teach' to a culture that will enable and promote the idea that 'being a doctor is being a teacher'.

5. Continuing professional development in teaching:

Teaching skills of senior doctors, junior doctors (employed in training or non-training posts) and any health professionals involved in contributing to the teaching medical students and residents need to be developed. The right to train all that teach will make them feel valued. Organisations need to recognise and reward those that teach for their contribution regardless of seniority or discipline. MoH needs to empower all MoH hospitals to train all doctors to learn about teaching and learning within their working environments as part of their continuing professional development.

6. Medial schools should take steps to promote the formation of educational identity in the early years of medical schools:

Medical schools should include clinical teaching as part of their shadowing program in the early years of a medical student's curriculum. Such a program would contribute to students forming their teaching identity on their journey to become medical doctors. In addition, medical students will develop a sense of belonging to the medical education community early on and influence their identity formation (Wahid et al., 2021).

Only after the imperative to teach has been established in the culture can the requirement for, and the shape of, professional development activities relating to teaching and learning be effectively established. Thus, as an educational developer, the simple *provision* of professional development opportunities will not solve the problem by itself. The first steps must involve the cultivation of a climate in which responsibilities to teach are accepted. Once this is done, doctors will then be in a state of mind to want to *seek out* the training that they themselves have determined as being necessary to the fulfilment of that accepted role.

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Appendices

Appendix 1: Interview Guide (teachers)

1. Could you please tell me about your current role as a clinical educator that you have been doing now for X years? Could you please tell me what you do in this role?

    Possible prompts:

    o how long have you been doing this role?
    o What is it like to be a medical teacher?
    o What do you most enjoy about your clinical educational role?
    o What are its challenges- if any? And why?
    o What do you think of other medical educators' roles?

2. Could you please tell me whether you had any thoughts about clinical teaching whilst you were a student or resident?

    Possible prompts:

    o Have you thought much about your clinical teachers? Give real examples.
    o Have you had any expectations or worries about doing it right when it becomes your turn to teach? If yes, what and why is that; if no, why not?

3. What preparation, if any, have you had for your clinical educational role?

    Possible prompt:

    o Have you required assistance from anyone to do your role?
    o What challenges have you been expecting in this role?
    o How have you dealt with such challenges?
    o What opportunities have you had?

4. If you have not been prepared, why do you think this might be?

5. If you have been prepared – has anyone helped you with this?

    Possible prompts:

    o Has anyone helped you to be prepared for your clinical educational role?
    o Have you talked about your role with anyone?
    o Do you think you might change your role in any way?

6. If you have not had any help – would you like some?

    Possible prompts:

    o What kind of help?
    o Who do you think might be able to help you?

7. If you were to be involved in a project to help other medical teachers in a similar situation as yourself with challenges in their role, what support, help or training do you think you would need to do this?

    Possible prompts:

- o Can you imagine trying to help yourself and other medical teachers in a similar situation as yourself in regards to the challenges in their role? If you wanted to do this – what might stop you? What might help?

8. Do you have anything else you would like to say or share with me on the subject we have been talking about?

Appendix 2: Participant Information Sheet

Project title:

A critical realist exploration of influences on medical teachers' ability to embrace opportunities and to deal with challenges in their clinical educational roles.

Invitation

I would like to invite you to participate in this research study. Before you decide to take part or not, it is important for you to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully and discuss it with others if you wish. Please ask me if there is anything that is not clear, or if you would like more information. Take time to decide whether or not you wish to take part.

What is the purpose of the study?

Like any educators of higher education, medical teachers face many challenges, such as an increased number of students, and great diversity in student skills, abilities, and experiences, student behaviour, issues of difference between individuals (include gender, race, ethnicity, sexual orientation, religion, urban / rural, or political commitments, among others), educational environment and resource availability. However, medical teachers have the added challenge of health care delivery and patient safety while teaching. Some of the challenges that have been reported by researches were lack of time to teaching in a busy clinical and service pressures, feelings of isolation, patients' rights, expectations and safety of their care that can conflict with students' or residents' needs, increasing numbers other health care students, inter-professional education, keeping pace with new scientific and clinical knowledge and an increased demand from professional bodies, regulators and society. The purpose of this study is to explore the challenges that medical teachers encounter in their clinical educational roles, the factors that might help

them to deal with such challenges, and the implications of these factors for faculty development.

This study is part of the research PhD degree at the University of Edinburgh. The project has been approved by Moray House School of Education Ethics Committee, University of Edinburgh and Research and Ethical Committee at the Ministry of Health in Oman and Sultan Qaboos University Medical Research and Ethics Committee.

What will happen?

In this study, you will be interviewed by the researcher. The researcher will ask you about your experience of clinical teaching, your clinical educational role, the challenges that you have encountered in this role and how you dealt with such challenges or your roles and experiences as the administrator or stakeholders of medical educators' challenges. Also, the researcher might ask you to participate in focus group discussions. Both the interview and focus group discussions will be audio recorded and a copy of the transcript will be offered to you following transcription.

If you believe a transcript misrepresents your comments or opinions, please inform the research and an alternative wording will be negotiated.

Why have you been invited?

You have been invited to participate because your organisation has identified that you are a registered medical teacher in clinical setting. I need to conduct the study with doctors who are teaching both undergraduate students and residents in order to address the research questions.

Time commitment

The semi-structured interview/s will typically take between 30 to 45 minutes. If you are asked to participate in focus group/s discussions, overall it will take approximately one and a half hours to complete the study. Breaks will be available as needed at any point during the discussion.

Participants' rights

You will be asked to sign an informed consent form to indicate your voluntary agreement to participate in the study. However, you may decide to stop your participation at any time without having to justify your decision. You have the right to ask that any data you had supplied to that point of withdrawal to be destroyed.

Feel free to ask questions at any time. If you have any questions as a result of reading this information sheet, you should ask the researcher before the study begins.

After the study has been published, a copy of it will be provided to you.

Benefits and risks

This study poses no known risks to you or to others. The study does not provide direct benefits to you rather than the scientific knowledge and suggests future implication to practice.

Confidentiality/anonymity

As a default, your personal information will not be revealed. Your name will be coded and renamed on private list and numbers confidently with the researcher. The data will be securely stored and destroyed in accordance to the University of Edinburgh policy. The data will be documented in the PhD thesis and published by the University of Edinburgh. The data collected will be presented at conferences and in academic publications. However, the publication will involve only the data, not personal identifiable information. You will be offered a copy of the thesis.

For further information

The Researcher name: Laila Al Zidjali

I will be glad to answer your questions about this study at any time.

You may contact me at: lailaalzidgali@gmail.com or

Via text message on WhatsApp number 92211557

If you have a complaint:

If you have any complaint you can contact

Dr. Michael Ross the researcher supervisor at

Email: Michael.Ross@ed.ac.uk

Appendix 3: Participant Information Consent Form

Consent for Participation in Interview Research

I volunteer to participate in a research project conducted by Laila Al Zidjali as part of the researcher PhD degree at The University of Edinburgh. I understand that the project is designed to gather my experience as medical teacher in clinical settings. I will be one of approximately 20 physicians being interviewed for this research.

1. My participation in this project is voluntary. I understand that I will not be paid for my participation. I may withdraw and discontinue participation at any time without penalty. If I decline to participate or withdraw from the study, no one on will be told.

2. I understand that most interviewees will find the discussion interesting and thought-provoking. If, however, I feel uncomfortable in any way during the interview session, I have the right to decline to answer any question or to end the interview.

3. Participation involves being interviewed by PhD candidate from The University of Edinburgh. The interview will last approximately 30-45 minutes. Notes will be written during the interview. An audiotape of the interview and subsequent dialogue will be made. If I don't want to be taped, I will not be able to participate in the study.

4. I understand that the researcher will not identify me by name in any reports using information obtained from this interview, and that my confidentiality as a participant in this study will remain secure. Subsequent uses of records and data will be subject to standard data use policies which protect the anonymity of individuals and institutions.

5. Faculty and administrators from my institution will neither be present at the interview nor have access to raw notes or transcripts. This precaution will prevent my individual comments from having any negative repercussions.

6. I understand that this research study has been reviewed and approved by, that the project has been approved by Moray House School of Education Ethics Committee, University of Edinburgh and Research and Ethical Committee at the Ministry of Health in Oman and Sultan Qaboos University Medical Research and Ethics Committee.

7. I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.

8. I understand that I will be provided with a brief report of this study results and I will be offered a cop of the PhD thesis.

9. I have been given a copy of this consent form.

_____   _____

My Signature   Date

_____   _____

My Printed Name   Signature of the Investigator

For further information, please contact:
Laila Al Zidjali   e-mail: lailaalzidgali@outlook.com
                                Mobile: +96892211557/+447761237773

Via text message on WhatsApp number 92211557

Appendix 4: Copy of Sample Interviews

Interview with S08

I: I would like to thank you for accepting to be interviewed. You are S8, the code that I'm using for the transcription. I would like you to tell me about what is your educational role at the moment.

R: So actually, I teach undergrads as part of like faculty in the College of Medicine in the hospital. And also I teach postgrads like OMSB and also like faculty in Oman medical speciality Board. So as an educator, so I teach all the students like in pre-clinical and also like clinical years for the undergrads and I teach all the residents, either like didactic lectures or like clinical bedside teaching or like procedure, like endoscopy. I'm also like…as education I also do administrative jobs like work, I'm actually the chair of education committee in the [My specaility] department and also I'm a member of the education committee in Oman Medical Specialty Board for [my specaility] and also the chair for research sub-committee, which is part of that education committee in Oman Medical Specialty Board. So that's I think a summary.

I: A summary, excellent. What other roles do you think that you would like to do as a medical educator?

R: Other roles?

I: But it's not part of the educational environment…

R: …at the moment, yeah.

I: Yeah.

R: I think what you need to do actually, more of actually like teach our junior doctors, like not trainees or the students, like those who are also our junior doctors, our supporting staff.

I: Interesting.

R: Because they don't…they just rely on…they do service, but here we are not focusing on them.

I: Oh, right.

R: Like those also they are teachers, but our students and they're teaching our residents.

I: But they're not getting training.

R: The training, yeah.

I: So you would like to be involved in that.

R: We'd like to get them…like need to have a programme for them so they get updated like CMEs, teaching, so we need to get involved in that. I think otherwise…nothing else actually, in addition to what we are already doing right now.

I: Yeah. So do you…doing the educational roles that you have stated to me, is there anywhere written educational role from the administration or from the system, from both the undergraduate or the postgraduate or you think that is your educational role, or your department thinks that these are education…or is it inherited? Can you elaborate?

R: Actually because I'm like…I came from a Canadian training system, which is I think one of the best in the world, actually you have to like…to be educated you have to be…like teaching actually. Is the environment there, it's made you like you come out of that programme a teacher and you like to teach and you like to give the knowledge and you like to…always like teaching, everyone around you. You have to give whatever you have, what you have acquired to the others, and also for the country. Otherwise actually in the college we don't have like specific, like as educator or as a teacher what are your roles, I think it's inherited also, part of like you are in the college, you are a teacher, so you have to be a teacher, but the good thing I came from a training where I was even a teacher when I was even postgrad, before I graduated. I acquired teaching skills from that time and I like to teach. So it's in my blood, I would say.

        But in postgrad in Oman Medical Specialty Board, because I'm actually member, we do have actually, so as a trainer, what are your roles as an associate, for example I'm associate programme director, what are my roles. As a member what are my roles, also like researcher, chair, what are my roles, so they are specified roles actually, but in the college, no. Unfortunately we don't have those actually specified, which I think it should start from the undergrad. Which actually, honestly, as a chair of the education here we're working on that. We are planning to have actually a day in September where we have a full day and invite all the teachers to get like a change the curriculum where we also specify what your role as a teacher, what is your role as a student, in [my specaility] rotation.

I: That's excellent, that sounds like a way forward for this, excellent. So how is it like to be a medical teacher or clinical teacher? How does it feel?

R: Oh, I like it actually. I like to teach. Even sometimes the nurses who…my nurse, I have a nurse…I am a specialist in transplant hepatology so I have a nurse working with me. It's a very super specialised like field, but still I

feel my nurse, who is like a basic nurse, she knows all like ins and outs of hepatology.

I: That's how it should be.

R: Because I'm teaching her, I like to teach her.

I: Why do you teach her?

R: Because she is my…she's my right hand.

I: Oh right, yes.

R: Like I have a nurse, I don't have registrars but she's my right hand. She takes care of my patients, she follows up the results, so I have to tell her when she…for example, when she saw a result, what is normal to that, normal, and what she's supposed to do about it.

I: How do you feel about teaching somebody who's not equal to you in…

R: So you have to put yourself down, you know, like you talk to their level. I teach her, I have taught actually like senior people and I like to give presentation teaching to my specialty, and have also like even school nurses, so you have to change the way of teaching. We went through workshops, courses, but I think this is also you learn it, you acquire it.

I: What I feel that you're saying is that you're saying this is something inside of you…

R: Yes.

I: …that you like to teach. Why do think that? Why do you feel that way? What made you feel that way? Were you always like that?

R: Truly I think since I was a medical student I liked to teach my junior students and also when I graduated, when I was also in the training programme in Canada, I liked to teach.

I: But why?

R: I don't know. I like to teach. Actually if I go back when I was also like in elementary school, to be honest this is really, so after school actually I take the first, second third grade, fourth grade, and I teach in them at that time. So I don't know. I think was doing that.

I: .ما شاءالله

R: We live in a rural area, you know شجر الغاف, actually after we eat lunch we go there, and we have a school, we have a board, we have like all the materials and we teach from the grade 4. I was teacher. I don't know why, honestly, but I think it's…in my family I have no one, like, I'm the only one, like my family, like my father, he's a fisherman, my mother, she's a house…like a…

I: Housewife.

R: …housewife. Even my…I don't have uncles or like aunts, I don't know.

I: What about your brothers and sisters, were they the same?

R: My younger…I was the…

I: You were the oldest?

R: I was not the oldest, but I have younger. I have teacher younger than me, I have a nurse younger than me, but no one older than me who I…as a mentor or like a role model.

I: So you started it, you started it.

R: That's what I would say.

I: Excellent. It's really fascinating. You don't know why.

R: To be honest, I like to teach.

I: Was it something with your teachers from school?

R: No actually, I don't know.

I: You just liked it. Excellent.

R: I think so, yeah. I was even thinking to be a teacher, I think, until I started with high grades and go to medicine. I was going to be a teacher.

I: You're still a teacher.

R: I didn't know about medicine, would be a teacher, doctor would be a teacher, doctors in the rural area they are not teachers, they do their job. My dream…

I: …came true. سبحان الله, differently but it came true. Okay. Let me take you back when you were a student, when you're an undergraduate or even when you were a resident. How did you see your teachers?

R: We're thinking about two different environments. As undergrad I was here, you know, so maybe my…when I look at it it's maybe different from others, but I see teachers, because they are paid to teach, they have to teach. But it's not in their blood.

I: So this is how you felt.

R: Yes. It's not in their blood, they like to teach. Exceptions, exceptions, but most of the time it's not actually.

I: So when you were looking at them, what were you thinking, when they were teaching you?

R: In the future I would be better then you like I would be a teacher who liked to teach, who like it's not because I have to teach but I like to teach.

I: Absolutely.

R: But I feel for the postgrad, because I was in Canada, which is a different environment, so I cannot compare to here.

I: Tell me your experience.

R: My experience was great actually, like I learn from different teachers and I'm using their ways of teaching even. It's like [inaudible] their skills. You have to have a mentor teaching you. So then I took their ways of teaching, some of them, and I'm applying here that excellent up here the way of even how to prepare my PowerPoint is unique, no one does it here. My way of preparing my PowerPoint, no one does it here.

I: You'll have to show me.

R: I'll show you.

I: So what you're saying is these are doctors and consultants, and these are doctors and consultants, both of them two different environments, why do you think this environment was different than the environment in Canada? Because they both are qualified medical professions.

R: I think it comes from inside. They're…actually no, Canada we talk about their training programmes like the kits or [inaudible], how many years, almost a century, here's just it's a new born, I would say it, system is different also. UK system, most of our teachers they are Canadian system, Canadian/North American system is known to be strong for teaching. Even like if you are a weak resident you will be strong by the end of the training, because it's a factory. You go through the process, they will produce like excellent doctor. If you cannot pass they will eliminate you

from the beginning. Here I think it's UK system, I don't know, UK system is different, honestly.

I: So why do you think this is happening in this environment. We are a new medical schools considering we have elite consultants and teachers, why do you think we are not reaching where people stopped, for example? Why have we not started when people are stopped? Because medicine you don't stop, you just continue the process. Why are we still so much behind?

R: Actually at the moment, since we came back, things have changed a lot. I'm talking about the whole…

I: When you were a student?

R: Yes, when I was…there were reasons also. Like before we grew from the Canada the Omani doctors, I also think they are Canadian/North American trained. Even like doctors who are actually Australian, when they came back things changed. But I think the old system was different. We have old professors here, the ways to teach are different.

I: How different, because that's what I'm interested in. What's happening?

R: I think the way they got taught was an old way of schooling. The new schools are different. You get workshops, how to teach, resident as a teacher, resident as whatever, before they were not getting that actually. I think I would say they do service and they do exams like MRCP and then they get graduation. Now it's get continuous assessment. As a resident, as a clinician, as a teacher, throughout the day, day by day.

I: So is it the curriculum, not the individual?

R: Of course, it's the curriculum. It's the curriculum. I told you, in the Canadian system, even the individual is weak, if he or she is keen to go through that system they will be excellent.

I: So that means a big chunk of what's happening is to do with the curriculum itself.

R: Correct. Curriculum and defining job description. What I said in the beginning as a teacher actually. Unfortunately here…

I: Until now we still…we have…

R: Until now, with a topic, students are complaining, they put a topic, they still will come, we have two teachers over two rotations, this doctor here presents it differently, that doctor differently, they don't have idea how to teach that topic. I think it's the curriculum, and also choosing the qualified

doctor. I know they are senior doctors, but choosing the qualified doctors who are really teachers, because we are academia here, we don't choose a doctor who's not a teacher, who's not interested in teaching. We still have doctors here who are not interested in teaching.

I: So how about affiliated hospitals, because they will not employ people with academic qualifications. So how would they deal with that?

R: The rule is…the rule is each doctor should be a teacher.

I: This is what you're suggesting?

R: You are a doctor, you are a teacher. You've got MD, just from the MD, we're not talking about…MD you are a teacher, you have to teach. I think this should apply to everyone unfortunately it's if it comes from individual now. You've got to come as individual. I think there's like incentives, give them money to teach more. Like you know if you talk about affiliated hospital they don't get allowance for teaching. We get allowance for teaching. But also I think we get allowance for teaching here, but they have also teacher who they don't teach.

I: Why's that, in your opinion? Why do you think…

R: Here we talk about individual. I think we have qualification, I know they are an old professors whatever, we have an assistant professor for 20 years, he's an assistant professor. So we should know that there's an issue there with that individual. When you have an assistant professor for 20 years, assistant professor, this is a person who should not be in a university hospital, he should not be from the begging.

I: But they're giving a service, I guess.

R: They're giving a service, but back to the same thing, I need a teacher. Now we have undergrad college we accept 100 plus student, we have postgrad also, we have many residents, we are deficient in teaching, good teachers in Oman.

I: So basically what you're telling me is that if we are to develop the future doctors we need not medical professions only, we need equally an excellent teacher.

R: Teachers, yeah.

I: So do you believe…this takes me to the next part, do you believe that we should have a curriculum, and why? Curriculum for teachers in the medical profession.

R: I think we should have…

I: At what stage?

R: You know like when you graduated as an MD for Omani doctors it should be part of Oman Medical Specialty Board, which we do now, they are workshops for teachers, like resident teachers, and also we have actually like need responsibilities, like for example R2 teaches students, R3 teaches R1.

I: But they're not taught…

R: But we have workshops for them. The same thing that happens then. So that workshop, that teaches, like there isn't other teacher, their workshop all day workshops or 2 days workshop [voices overlap]. So teaches them how, because as I told you MD you are a teacher, but you need to teach…I need to teach that resident how to teach, you know, in a busy day, he must take care of patients. If you are managing patients, you can teach at that moment of managing, just taking a patient who's sick, for example, also you can teach at the same time. During procedure, the same thing. So doctor can teach at all the moments, even you are walking to the hospital on the way, discussing patients with the residents, can teach. Anything. Writing a prescription you can teach, every doctor I think is a teacher, when he comes inside the hospital till he leaves.

I: Absolutely, absolutely. That takes me to the next question. I'm sure during the teaching career as a medical professional you have faced challenges, you have faced opportunities. I would like to know what are these challenges and how did you deal with them as an individual and what opportunities have you got and how did you embrace those opportunities?

R: For my…

I: Yes, your own clinical experience.

R: My clinical experience, as a teacher?

I: As a teacher.

R: I think the same thing actually, when you come here you face a curriculum which is different from like trained to do.

I: What you have been trained…

R: So you have to accommodate yourself to that curriculum, which you might not agree with but you have to follow it. I think how I actually face that or how I resolve that issue you have to do it by attending the college sponsored workshops for us as educators which will teach you how you follow the curriculum, how you teach, how you do the exams, all the

different kind of exams, different kind of teachings, that's how actually I felt like over the last four years I have developed to accommodate myself to a curriculum which I don't know about exactly, like it was new to me anyway.

I: So it's like any job, you enter a job and you have to adapt. Why do you think you were able to adapt when some don't adapt?

R: I think…I don't know, I think I'm flexible.
I: What makes you flexible?

R: That's a difficult question actually. I think because I like teaching, I think I like teaching whatever kind of a system I would adapt to that system, even if it's different from the system which I know, because teacher is a teacher either in this curriculum or that curriculum and teaching skills you can modify with your experience. I know you have to get like workshops, courses or whatever, but that can adjust to help you, but actually it's from your inside here.

I: So I understand that a teacher, regardless of what profession, they need to be flexible. Is that the correct term? I think it is.

R: I think so.

I: Flexible, so they can adapt to any situation?

R: Of course, that's the same thing. Not a teacher, but MD, like doctors, they are teachers and they also have to be flexible, because even as a clinical service you go from different hospital, different system. Like you go to AFH a different system from here. Our residents from OMSB send to different and they rotate and they have to accommodate to that. So I think it's in our blood. We have to adapt to a different system, either clinical, teaching, whatever. It's a learning process.

I: Your profession says you have to be flexible.

R: I think so, of course.

I: What other challenges have you faced?

R: As a teacher, I don't think there's anything else actually. Because I like teaching. Only this issue of the new curriculum only.

I: So what opportunities did you get when you came back and became a medical teacher here? Or even when you were in Canada, you said you were a resident and you were teaching, what opportunities did you get there?

R: You mean like as…

I: What things…

R: As an example, like what?

I: Like for example you started your career as a medical teacher in Canada and before you did that they actually gave you courses.

R: Oh, okay.

I: Or you had somebody to be a shadow, who was a good teacher, for example, or somebody peer reviewed you, things like that. So what opportunities did you have?

R: I think the same thing, which is workshops, courses, either in Canada or when I came back to Oman.

I: Was it part of the college or part of OMSB?

R: Part of the college and part of the OMSB as postgrad.

I: Both. So opportunities for attending courses were plentiful.

R: Yes.

I: So why did you attend these courses?

R: Because I like to improve myself. I'm looking for anything new way.

I: So you don't think that you had experience and the skills…

R: Education is an evolving process. It's like medicine. And that's why you're doing actually your PhD, I think, because it's evolving and [inaudible]. So teaching is not ABC, if you like it's flexible and it changes with the time. Now we have different like a student in the '90s is different from a student in 2000s.

I: Let's say you were made in charge of medical education, other medical educators, which you are at the moment, and you were given the staff that you need to make these teachers have the skills that they need to have as medical educator roles. What support would you need, what help would you need, what training would you need to be able to do this?

R: Actually from the college side we sent our educators, like our tutors, to do workshops, which the college do it on annual bases. Also we really need

the same workshops for our junior doctors who did not have the chance to go in the department, almost anybody else, so we do actually like our…

I: So the department itself does other courses.

R: Other courses, yeah. It's a small like…short like a workshop, like two or three hours, to teach the junior staff or even the senior who did not have the chance or to actually refresh those who have done it years ago, done the workshop. Other things actually, this is for the undergrad, postgrad the same thing, we do the same thing actually for our trainees, encourage them to attend, we monitor that also, who attended, like every year we get a list, Dr So-and-so, which workshop you did not attend, so we send them an email, please attend this workshop this year.

I: So is it mandatory?

R: It's mandatory.

I: What about if they don't attend, they say they're busy? What effect has that?

R: Nothing, I think.

I: Nothing, so it's not mandatory then.

R: It is mandatory actually, by the college. But I did not ask if those who are like monitoring or supervising from a distance if they have not done what would be the next…but I think…

I: So it is mandatory but there is no consequences for not attending.

R: Up to now no one actually knows who does not attend.

I: What about in OMSB?

R: It's the same thing.

I: So it's mandatory, but…

R: No, no, no, sorry, OMSB is not mandatory. In the college it is mandatory.

I: Mandatory but no consequences if you don't attend, up to now.

R: I don't know actually, maybe there are consequences which I'm not aware of, but no one came to me.

I: You are aware of people who have not attended and nothing has happened?

R: No, no.

I: You are not aware of people who have not attended

R: No, because we keep monitoring them, we tell them, we remind them, and they go…because it's very, very interesting, it's very fun actually to attend those workshops, that's why. It's like you will be day off or two days off.

I: So is it a faculty development, right?

R: Yes.

I: So what is fun about attending, apart from learning a new skill or new information? What's fun about it? What else do you gain from it?

R: I think you'll be in direct face to face with those educators who specialise in education, you have questions, you can talk to them, because that's actually a chance for you to talk to them. Because in a busy day, busy life, you might not be able to meet them. And also you learn experience from others, you change, you talk, you see how they do the things, because the workshops. It's not only like going and listening.

I: Let's go back to the question. So if you're in charge, what would you need? What support, what help, what training? You told me the training that you need. Tell me about it.

R: So one thing actually which we are thinking about now is to do peer review, so like a teacher, teaching students will be reviewed or like assessed by his college at the same time. We already have protocol, we already have like assessment sheet…

I: Is this coming from the college?

R: From the college actually but honestly when we applied it last year to just to see as a pilot compliance was not much. This year also really they did it again, the same thing also. Like the college wants to see a feedback, like get a feedback from us, will we be able to do this peer review or not.

I: So you're saying there was a resistance?

R: Not a resistance, but…

I: Or not interest?

R: I don't know if it's interest or busy.

I: Right.

R: Honestly we go back to the same thing. The hospital, which actually always even the higher people, the DG, I talked to him, we need to define ourselves. Are we a service hospital or are we a teaching hospital, because we do a service to much more than…it's affecting actually our…one of the difficulties we have…

I: That's a challenge then.

R: A challenge. Affecting our actually…for example, I'm the chair, I get a complain from the student that the teacher did not come today. The teacher came late. Why? I don't blame the teacher because…

I: Where did not the teacher…

R: In a class.

I: In a class, okay. For theory session?

R: For theory session. Even bed side teaching in the afternoon … bedside teaching.

I: So they have an appointment with the teacher to come…

R: Yeah, yeah, they have a schedule sent to…

I: …and the teacher did not come.

R: Did not come because he has good reason for patients, sick, cannot leave the patient. So I think…

I: This is a real challenge.

R: It's a real challenge.

I: How are you or others…you're dealing with that. You don't have that issue?

R: No, everyone has this issue.

I: So how do you deal with that?

R: What I do actually I call the students. I tell them to wait if I will be there within like ten minutes, like 15, but if I feel myself I will be very late for them, I will assign someone to do the teaching for me.

I: So is this opportunity available for everybody?

R: I think so.

I: So how come you're taking the initiative of doing it and others are not? Do you think there is departmental issue where some departments can deal with that and some not?

R: No. We told actually, I am the chair, we told all the tutors. If you cannot, what is Plan A, Plan B.

I: Right.

R: So they are aware.

I: So how come some are taking that initiative and some not?

R: I don't know that. I think it's individuals honestly. Goes back to the same thing that we were talking about.

I: So that individual again, is it just as you said it before, because either you like it and you think that is a duty that you have to do?

R: For us maybe interest is there also, but what we have done to force it actually, we formulated a letter, more like sent a warning letter to the tutors and actually the incidence came down significantly.

I: So that's a solution. This is how you dealt with it as a chair.

R: Chair, yeah. Every one of them knows that, everyone knows that, he has to do the teaching, otherwise should expect that letter, which is going to be in his or her file.

I: That's excellent. What other things do you need? What other support and help and guidance do you need?

R: So we talked assessing teachers, because as I told there are teachers who maybe like they don't know how to teach, maybe they attended workshops, still they don't how to teach, at least when you assess them when they are doing their teaching session you can sit down together and you exchange, you know that feedback. I think that should be implemented actually in the college and the hospital and other hospitals to improve. Because as I said we have difficulty in finding good teacher, but I think we learn from each other. Constructive feedback from the teacher, like your peer, should help you to improve the teaching, the teaching skills.

I: Do you think if you are to be evaluating or looking at another teacher, do you think you need to be trained for how to do it, or everybody should be able to do it?

R: No question, because we assess students, postgrad, resident, we always do assessments so it is easy. It's more the guidance, like instruction protocol, how you do that, but you don't need to have a workshop on how to assess each other.

I: You're making an assumption that people should know…

R: Should know.

I: …what they're looking for.

R: As doctors, physicians.

I: That's excellent, that sounds really fantastic. So what other things do you think you would need to support you in your role as a medical educator who is responsible for training other teachers?

R: I don't think there's anything in my mind now.

I: Well, you have given me really a lot of information, very rich information, and I think I'm going to come out with a lot of good ideas from it, inshallah. Do you have any other things to say to me that you have not stated and you would like to say regarding medical teachers?

R: I think teaching, there should be a continuous teaching, which is I will say…because you know I'm in the undergrad/postgrad, I see that undergrad is detached from postgrad, I think we should have like a flow of teaching that goes from a medical student to different years, to intern and R1, we should have like responsibilities and also the teaching and the way of teaching, the knowledge should be acquired, whatever skills should be also graded throughout the years. I think this should be actually…we don't have it here unfortunately, but if you go to like other systems in the world you see that you come from this medical school, you are ready to be a resident. Here you need to some time to give them to adapt to a new system which is I feel is detached from the undergrad. Undergrad/postgrad should be…

I: So you're saying there's a gap between the medical student into residency programme and a gap residency programme to consultant or to teacher.

R: Yeah. Taking about OMSB here, Oman.

I: So there is always a training, you need to be adapted to the environment before you actually will be able to function properly.

R: That's it. I think that's what I want to say.

I: I would like to thank you again. It's been really my pleasure to interview you and thank you for helping me for this project.

R: All the best. Any time.

I: Thank you. Excellent.

End of transcript

Interview with R11

I: I'm interviewing now, R11. Could you please tell me about your current role as a clinical educator, that you have been doing for the last 15 years?

R: So presently, since the last seven years, I have been involved in Oman with the OMSB, Oman Medical Specialty Board. I was a sub-committee member of the [my speciality] Sub Committee of OMSB, which involves, apart from the administrative part, there was a lot of teaching of the medical residents. And presently, I have given up the membership, but I'm a tutor. They have this thing where you are a tutor in the OMSB for the [my speciality], so this is the [my speciality] part, plus we get [other speciality] residents from all the specialities and [other areas], so we are involved in teaching them and we are also part of the senior clerkship students from university, they come to us regularly during their postings.

I: So, how is it like to be a medical educator?

R: Well it just feels good because you feel that you are able to give back something that you have acquired over the years, and you feel there is a need for a constant education in the medical field. What they learn in college is not enough, because medical education is a constant learning, it's a daily learning, so you need the clinicians to teach the residents on a daily basis, keep them updated, keep them motivated, and keep them interested in the field. (I: Keep the students or the educators?). Both of them updated. And because that keeps them motivated to learn and to teach. Unless there is somebody to take the information from you, you don't really try to acquire the information. So, you do it of course, for your patient management, but when you're teaching it, it's even more fulfilling, more satisfying. So you feel you are doing two jobs with the same information. You're treating your patients better, as well as you are helping the future generation to learn better.

I: Why do you have that attitude?

R: Probably it comes from the people who have taught us, so we come from institutes where you have dedicated teachers, who are…they had an option of going into private practice and making a lot of money, and giving up this teaching aspect. But there were many who just stayed back in the medical colleges, just to teach us and to see us progress in life. So, probably as part of that, and when we see our own children studying, and we feel that there is a constant need for people to teach them, and it's not always easy for people to teach them at home. When you teach them at the institute level, at the professional level, they probably look at it in a better way, and they get more inspired by that.

I: Do you have a memory of a teacher that has really inspired you?

R: Yes, actually, probably in every walk of life, I've had such experiences. I remember in the school days, also, there was a teacher, who just, I was in a school and I was a very shy child, and she just told me that, you are going to be the monitor of the class, one fine day, and I thought that to be a monitor, I should be good in my work, I should stand out. Because my personality didn't make me stand out, because I didn't feel that I'm an open person, that I talk well and everything. I thought, the only way I can do it is by studying better. So I think, because I was given that opportunity, I tried to do it by getting better into my studies, and so that was one teacher, which helped me to always excel in my studies. I felt that I should not lose this opportunity, so that was one thing.

Then in college, we could always make out, who is the better teacher, and who is the teacher who is just teaching for the heck of studying. So that has always inspired us. Then, in our medical colleges, we always have certain teachers, and we know, even today, we know that those teachers have dedicated their lives completely, and we have seen that, even after we left, they were there all their lives. And we felt that they could have been such good doctors in the community. And they could have done so much better for themselves, rather than just sticking in a medical college, and teaching, and doing so much just for the students. So, I remember one doctor Manu Kutari, who unfortunately passed away recently. He would give us lectures, not only to be good doctors, but also how to take patients, not just as patients, but as human beings. Like, don't just put all your knowledge into it, try to understand their background, look at the quality of life that he's going to lead. Just don't expect them to do things just because, as a doctor, you want to just keep instructing them. So, the human aspects, he used to teach us. Which probably helped us to become better doctors.

But then, even in our post graduation, there were clinicians who are doing a lot of clinical work, at the same time they will make time to teach us. So, like that, every walk of life, we felt that there is so much you can do, and you can work with your patients, and at the same time teach. And also, we can teach the patients also, more than what our medicine has taught us. So, that way, in every walk of life, we have had teachers like that.

I: You said earlier that you could identify a good teacher. So, how did you identify the teacher? What does he have, what is he wearing?

R: A good teacher always we felt, is somebody who could, of course, they should have good knowledge. When I say, good knowledge, it doesn't always mean maximum knowledge, you will always find somebody who has too much knowledge, but has too much attitude, but we don't feel like he's a good teacher. Somebody who definitely has good knowledge, like adequate knowledge to give others, and at the same time speaks well. But

is also compassionate. Addresses all the students equally, doesn't focus on only certain students who are more bold and talking more, but actually giving attention equally. Identifying the student who is not really getting things, but focusing on that student and making him also involved in the subject. (I: What did you mean by speaks well?). Speaks well, I mean clearly. Obviously you cannot really concentrate when a teacher is just mumbling, and just going in a monotonous voice and not really making the subject interesting. And even not adding some humour. I like to add humour when I teach. I feel you have to make the atmosphere light. However good you can speak, however well you can teach, it's not easy to grab the attention of the students, on a continuous basis. They say more than 20 minutes, is expecting too much. So you need to make the atmosphere a little lighter and change the topic, and then get them back into the topic.

I: So, when you were a medical student, or postgraduate student, did you have any worries or expectation of what you will become as an educator originally? Or did you recognise yourself as an educator at that stage?

R: Well, not really, because as I told you, when I started, I was a very shy person, I didn't feel that I could stand in front of the, even if it was ten students at first, that I could stand and teach them, and get their attention fully. You would always be worried about people just sitting there but not really concentrating on what you are teaching, and you will just be going on talking, as you did for some of the teachers, when you were in school and colleges. You would definitely not pay attention to some of the teachers. So, you would feel that maybe tomorrow, somebody might do that to you. So that would hold me back. That maybe I may not be a good teacher. But, that is in my school and colleges. But, when I became a medical student, the later part of the years, when I became senior, and especially in the postgraduate time, when I would see that there are ways I can get over this timidness, the public speaking thing, and I think that was the time, slowly, slowly, I started getting some confidence. And at the end of the day I feel that also, partly, what made me get into teaching is, because it was part of my curriculum to teach. When something is part of your duty or part of your requirements, as part of you progressing, then you somehow get into it, and then it's up to you, how you want to do it well, or you just want to do it for the heck of doing it.

I: So, when you said that it is part of your curriculum, was this a curriculum that you have decided?

R: No, not what I had decided. It's a postgraduate curriculum. In [my country], we have three years post graduation for [my speciality] .The third year is considered as a teaching post. It's part of the requirement, it's called a teaching post. So, as part of the teaching post, you are expected

to teach your juniors. So like, you're a third year student, so you are expected to teach your second year and first year students.

So it's mandatory. It's part of the teaching post.

I: Okay. And do you get any assistance to be a teacher, or are they expecting you to teach?

R: That's one thing, that's something we didn't have much in [my country], at that time when I was getting trained, now things are different of course. So, we were not trained, we were expected to learn by watching. Now that drawback came when I went to the UK, so I was part of the CCST programme and there I was exposed to formal teaching. Where, when you become a senior registrar, so there, they actually encourage you to attend these teachers training courses, and they teach you how you teach in the different format, like small group discussions, how to get attention of the students. So, by attending those courses, I felt that there is a lot of scope for improvement. And, of course, when I see the teachers there, they were much better than what I was exposed to before. And then I realised that it's because of the training, that helps them to become better teachers. And of course, as you learn to speak better, you get more confidence to teach better I think. So, it's all about getting your confidence and public speaking skills I think.

I: Yes, so if we come back here, what are your challenges, teaching in this institution?

R: Well the major factor is the time factor. So, this year still, we don't have the concept of dedicated time for teaching, what we used to have in the UK. We used to have a dedicated shift, like one day would be dedicated for teaching. Here, we have remove time for teaching. So, the students also get used to that I feel, they also know that you will teach only when you have time. And, if you don't have time, nobody's going to ask me why I'm not teaching. Because I have not been given a dedicated time, so it's understood that I will teach if I have time, if I don't have time I'll not teach. So there is no compulsion on me to teach. So, because of that, the students always have, the residents and the students, they will always have a tendency to leave that aspect or get away with it. They will also come when they feel like. So it benefits both, the teachers as well as the residents. Probably both of them take advantage of that thing. (I: Yes.)

R: So, anything that is not made compulsory …, especially this used to happen more before OMSB, because before OMSB the residents were just left on their own, and people used to teach, if you are interested in teaching, or if you had time, but nobody used to really force you. They used to tell you and they used to encourage you, and say, you must teach, you must teach, but it was not compulsory. So everybody used to take it for granted

really. But after OMSB came, again there was not really a formal way of assessing initially, whether you are teaching, and whether that teaching is helping the residents. So, again, it was a little bit loose. But now, later on when they started, the evaluation aspect, the assessment aspect, where the resident is also assessing, the teacher is also assessing the residents, and these assessments are actually valued. And they are given importance. So, that's when things started becoming serious. So, I feel for any teaching there has to be an accountability. So, once you have an accountability, and there is somebody who is watching or supervising, or noticing these things, only then people take this seriously.

I: So for you, how was it? Did you teach because you wanted to teach, or did you teach only when you were accountable for teaching, and why?

R: After I had been to the UK, and after I got trained, and once I acquired more qualifications, more knowledge, more experience, I think I overcame my resistance to teach. In a sense it was more because of my lack of confidence that time. But I realised that I am fond of teaching, and I will teach irrespective of whether people like it or not, you can say. It's not like whether I was forced to or not. I will, anytime, find people, whether they are nurses, whether they are residents, whether they are standing there, I will just ask them things, and make them realise that you can learn even in your day to day basis, even the small, small things.

Like, I used to see, even when the residents are just writing notes for the patients, it's not just like 15 minutes, you see the patient, and your work gets over. So I used to tell them then, you just go to the bedside and see how things have changed, see what nursing are doing. You can learn a lot, just by watching all those things. So, I found there was so much you can teach them, just be looking at small, small things. Not just formal topics. People don't like to teach because sometimes they feel that they can only teach formal topics. Like, you take a topic, you prepare and come only then you can teach.

That's when you know, the residents and the students also lose, and the teachers also lose that opportunity. They should utilise every opportunity to teach. Like, even on the ward round when you're just standing there near the bedside, even for five minutes, you can show them something, because sometimes we take normal things for granted. This everybody knows, even the residents, they must be knowing all these things. And then you feel surprised that the residents are happy because nobody really taught them, because everybody assumed they know it. So, it's the day to day opportunities that people lose on teaching.

So it's basically because of my problem, my exposure to people teaching me in this way, that I felt that you know, that students will benefit by teaching, even on those day to day topics, along with the formal topics.

Formal topics, preparation and all, that comes when somebody tells you. The resident gives you a topic of OMSB gives you topics. Or you will have your educational supervisor, and he'll tell you these are the topics you have to cover.

That, people do it, because that is hammered on them. This is your job, you have to do it. They've been given a time and a slot that they're okay to do it. That, people will do it. But it's the day to day teaching that people should not ignore.

I: What interested me, you said that you realise that you're fond of teaching, can you elaborate on that?

R: It's just that I feel that the residents whenever I used to tell them things, and even the nurses, when I used to tell them things, they used to like it. And they used to really sit and listen to those small, small things that I used to teach. So, they used to really come back and give me feedback, that, you know, Dr. Juhi is always teaching, and she always keeps telling us things. So I felt that they would hang around me. So I felt, it's probably a feedback thing that you get, and the response you get that makes you realise that people really are enjoying your teaching. And that probably perpetuates your teaching. And I don't know, it was not like some tube light or something that told me that okay, something clicked and said that I'm fond of teaching. It is just the responses that you keep getting on a day to day basis, that you realise that people are enjoying your teaching, and then you are also enjoying teaching. It's a two way process I feel.

I: So, what made you enjoy teaching, and teaching everybody in this instance, correct? What made you get the joy and then the feedback, and further joy, is that what I understand?

R: Yeah, see there was one more teacher, I forgot to tell you the name, I was always inspired by, there is one of the consultants in Khawla Hospital, I sat my intensive care training there, I used to work in Khawla Hospital before. And I used to really be inspired whenever I would see her in the rounds, and she used to teach us, just on the rounds, on a daily basis. And, when I used to see her teaching, and I used to see myself getting impressed, by her teaching, then I used to realise that, you know, probably, if I teach that way, I'll be happy with myself, like that. And probably I tried to emulate her, and when I probably felt that I've now achieved that level of teaching. I have to reach there. And I think to reach there, the only thing I can do, I just have to keep on doing it. And that's when I will overcome my fear of speaking and probably I can achieve my goal of reaching that. So, probably you can say it is like a role model, she was my role model, and she inspired me to teach, and made me realise that I will enjoy teaching. (I: Yeah, that's nice.).

R: Probably that's the reason, and it's something right from childhood, you know? Some of the games we play, you know? One of the games I used to always play is like, teaching, imaginary students. I think that is everybody what every girl, has this kind of play you know? They will have a blackboard at home. (I: You had that?). I had that, yeah, and I see my daughter doing the same, yeah. She has a board and even while she was studying, she will teach as if she's talking to people. So I see her, and when I see her, I remember. I don't remember my own childhood, but I remember doing that, when I see her. (I: You recall that?). I used to do that, yeah. So probably I always knew that I liked to teach, but I didn't realise it. And, as I told you, because of a lack of confidence in public speaking and talking in front of people, that you don't take it further, that thing.

I: And you think lack of confidence comes from where?

R: I think that has to be part of your inherent nature. You see some people are confident right from childhood, they are very flamboyant, and they can speak well. And sometimes it's your background, like, in your family, it's just nobody really encourages you to, or gives you an opportunity. So our [my country] curriculum sometimes like that. They don't really expose us to public speaking very early in our schooling years. So, probably, that also makes us very, and it's a very, very submissive kind of culture, in our schools, during our time. The teachers used to be very authoritative and they used to not let you speak, and you'd be really scared to open your mouth. So that used to really make you lose your confidence in speaking. There used to be very few opportunities to stand in front of the class and speak. Once in a while you would speak, so that was not enough to gain your confidence.

I: What I'm hearing is you're saying that your exposure to coming outside [my country], made you a different person, a different doctor, a different educator?

R: Yes, and especially because then you are left to fend for yourself. And then when you come here, of course, maybe I came at the time where probably even in my own country I would have done alright, with teaching, because that is the time you are expected to teach, when I left [my country],. So I'd just finished my post graduate and I came here. But that is the time you actually gain your confidence, because you have achieved your qualifications, and you can focus on your teaching. And, as I told you, the last year of our postgraduate courses are teaching posts so you are expected to teach. After that you become a lecturer, and you become assistant professor. So those are the years you are expected to teach, and that is the time I came here. So, it was the same timing where I was expected to teach, so when I came here I was asked to take some didactic lectures. So when I used to take lectures, people used to say that you are

good at the lectures but you can do better. So, they encourage you like that. So we used to have, our consultants and all, they used to keep telling us that you can do better. And there is also a desire to get better, to become better. It has to come from within.

I: So when your teachers told you to be better, did you take that as a positive or a negative, and why?

R: I used to take it as a positive, because probably I'm somebody who always has some role model somewhere, so wherever I go, even in my own institute, I always have somebody whom I would like to become like. So, like, when I started working in Khawla Hospital, I already had my consultants who read somewhere, and they were better orators, they used to speak well, they used to teach well. And I always felt I had to become like them.

       So, when you have a desire to become like them, then you try to imbibe everything that they have. So, in my clinical skills I was doing well anyway, so I knew that I had to improve this aspect. So, you should have a desire to read somewhere, and then probably I always knew somehow, fortunately, that what I need to do to move ahead, so that probably helped me. So I knew teaching is one thing that will improve my own confidence also, and it is something I'm enjoying it now, because I'm seeing that person, and I know that when she teaches well, I am getting inspired, people are getting inspired. So obviously, I have to become like that. (I: Yes.)

R: So that's how, probably, it is my desire to become something. Even when I went to the UK, I would see people teaching so well. In fact, after I left from here to go to the UK, I already felt that I'd reached a certain level, but when I went to the UK, I felt that, you know, my God, there are so much better teachers there.

       And you know, they speak so well. It is not always the knowledge, it is the way you deliver things. It is the way you do it in a systematic manner. In an organised way, there's so much you can learn. So probably, I always try to find out what I need to do, and I try to get there, and obviously I'm a hard working person, I'm ready to work hard to reach there.

I: So, what other challenges or obstacles do you fact in this context?

R: One thing is, time, of course, I already told you. Then, the other thing you can say, it's the benefits, I now look at other teachers, I feel, other potential teachers, and I try to find out why they're not going into teaching. When I look at them, even when they're juniors, but I see they have a lot of potential, but I'm feeling that they are not really going the way I have gone. I feel they're not really working that hard, and I was wondering why. And

one of the reasons I have felt is, which probably must have come across my things also, is I feel the benefits that they get out of teaching, the benefits could be one is you get monetary benefits is one thing, and then you get a time benefit, like you have leave for teaching, you are given a dedicated time that you know, the time is included in your daily work. Instead of 7:30 to 2:30 doing only your work, you go and teach for two hours. So, that is one thing. So, people are expected to teach out of hours, so they don't like it. One thing. So, of course, they should still do it, if they want to progress in life, but people don't always do it. Then the monetary benefits they look at and the other thing is, what will the benefit they get? Everybody doesn't want monetary benefits. Everybody doesn't just want money. They look at other benefits. Like, will this teaching help me to progress further? So they look at that aspect of it. So, if I'm not going to be promoted, or if my post is not going to improve, then I am going to remain the same, after some time, I'm going to stay where I am. And why should I waste my time in teaching? Teaching is hard work. Although you may be passionate, but it is not really easy work, it should not be taken easily and it's not easy work, because it's not easy to keep student motivated, to keep them interested in the subject.

And you can always copy and paste your presentation, and come and teach, but at the end of the day the students also assess you, they also know how much effort you have put into that teaching. So, people don't want to put that effort, they don't want to expose themselves, they have not really put in much effort, I'm just coming to teach because I have been told to teach. So, they know they are going to get exposed easily. And for what I'm going to get exposed. Why should I unnecessarily expose myself and make them feel that I'm really not putting in that much effort? And I'm not going to get any benefit, if I'm working, I'm doing my same work, which is easy for me now, what I have been doing for years, I have to do it, that is easy for me, I can do it by the away, I'm not going to be affected by it.

But if I have to teach, it's a little bit of extra hard work for me, so why should I go for it, if I'm not going to benefit from it, in terms of upgrading myself? So that is one of the reasons I feel, and also time, promotions is one thing, and monetary benefits. So everybody doesn't want to, they say I would rather give this time to my family, or, I can spend some time with my children, rather than do the teaching.

So sometimes I feel, when they're passionate about teaching, even if they have the skills, they give up because of these reasons.

I: And do you think it's because of their background, because you've done it. Why do you think this could happen, apart from just because, I think what I got is that they're scared of being identified as a bad teacher?

R: Not bad teachers, identified as somebody who's not putting in that much effort, or not really finding it worth putting in effort. I would say some of them in fact, are good teachers also. (I: But they're not putting in the effort, because students don't think, oh this person is not putting the effort in.). Yes, they will think it's a good or bad teacher, that's a point, okay, I totally agree, yeah. (I: So do you think that's what they avoid?). Yeah, because, why should I unnecessarily put in efforts when I'm not going to get benefited? (I: Yes.). So people sometimes look at, and they don't realise that you should not look at the immediate benefits.

I: So how is that affecting you as a teacher?

R: You see, it doesn't affect me, because I can look and say that probably I consider myself fortunate, that I had this, I was inspired and I took it as an inspiration, and I was ready to put in efforts, and honestly I didn't think I will do well in my life if I continue doing that, but fortunately I had done well in my life, because of that. But when I did it, I didn't do it with that intention.

I felt that I should do all these things, and these are the criteria, you have to do, to do well in life anyway. But I knew, at some point, that in spite of doing all that, I might not do well. I may not do well. But there is a possibility I might do well. So I took it positively and I just did it. But others are probably looking at immediate gains. They feel today if I teach for one year, next year I should be promoted to something. So, like that, things don't happen in life.

I: So, what makes you have a longer goal than some others for example? What made you say, I don't want an immediate reward, I know that a reward will come but it's not immediate. What makes you that way?

R: I think it's just probably my sincerity, because I just feel I have to teach, like so many times I've thought of giving up as being a tutor in OMSB, but I know that's not going to stop me teaching. The only reason I would give up, is because sometimes there are some didactic lectures or some commitments, I have some administrative commitments which I would like to give up, for sometimes, because maybe I have family commitments, but I know even if I give that up, I will not stop teaching, because it is something probably has become part of my life. So maybe it is something your own interest somehow, probably people are not just passionate or they have not really invested that much time in themselves to realise what they are good at, and to continue doing that, irrespective of the benefits.

I: Is that self-reflection?

R: It's a self-reflection I feel. But I feel, that even in spite of telling them sometimes, people sometimes just don't do it. I'm talking more in terms

of some of the things that I'm telling you, is mainly for the ex-patriates here, because they see that some people have progress, but some people are not progressing, and they take it as a negative thing. And I feel that whatever I do, I'm going to remain like this, I'm not going to go any further, I'm happy with whatever I have achieved. So, I don't want to do anything more, and nobody's going to demote me also. So there are no repercussions also. That is also the thing, you know. So, why should I put in the extra effort? So, it goes like that.

I: And what about for the Omanis?

R: For the Omanis, also I'm feeling like, for the Omanis, I feel, of course, you will always have some who are always dedicated and always teaching, but for some I think, again, no repercussions. That is one thing. They know that nobody can harm them. Because you have such few doctors and, there are already so many ex-patriates that you have to replace, so there is no way you can get rid of, you're going to demote somebody, or you're going to remove somebody because he's not teaching or not doing, even if he's doing his clinical work. They feel that, I have to just do my clinical work, and as long as I'm doing some work, I'm going to be identified as somebody who is doing his job.

So they don't feel that they need to give back to the society, they don't feel that what they have got itself, they have to give back to the society. Forget about further gains. But they look for further gains. Which is probably, I feel, is sometimes not right. I personally, even for my own country, I left my country and came, but still I feel, we have a realisation, because we have thought from day one, that when we become doctors, although we pay fees and all, they make us realise that those fees that you are paying are nothing compared to what the government has paid for you. They make us realise on day one. And we realise that. Because we realise that out of the 2,000 students, only 200 students get selected. And those 2,000 students are ready to take up their seat. So we feel that it's an opportunity that has been given to us. So that realisation, I think, has to be instilled in them from day one, which probably doesn't come easily I feel here. It's not probably they are made to realise. They feel whatever they've got is something that's their right. Which should not be the case. They should be made to realise that whatever you have gained, you have to give back much more now. That was a golden opportunity you had.

So probably, and that has to be taught, not in colleges, in schools, that has to be taught at home.

I feel that is missing. And in fact, they compare themselves with the ex-patriates sometimes, so that should not happen, in fact they should not see, like when you go to the UK, an ex-patriate and a local is absolutely the same. But here there is a difference, which is what they look at.

I: So what is the effect of that on the teaching?

R: So, on the teaching they feel that because I'm already doing so much work, as an Omani, why should I do more? If I'm doing more, you pay me more. Or you do something more for them otherwise I'm doing my job anyway. You have recruited me as a consultant, or as a senior registrar, I'm doing my job.

I: Do you believe the majority are like that?

R: No, as I told you there are people who have dedicated their lives and they have done so much, and they are doing so much still. But I feel everybody can do it. And even the residents, should utilize this as an opportunity, the medical students, they should utilize this as an opportunity and they should also have this feeling, that I have to get the maximum from this time, when I'm training, because this is a golden opportunity I have got. So many people have been deprived of this opportunity, that's when I have reached here.

I: So what about the opportunity that you have embraced since you became a medical educator? (R: Opportunities for me?). Yes, as a medical educator? R: I didn't get the question correctly, sorry? As a medical educator, you are a doctor, and you become a medical educator. And to become a medical educator as the definition, there are some opportunities for development.

R: Yeah, so once I'd got into the medical education I felt it's a satisfaction that I got, because initially I would look for my satisfaction once I became a medical professional, only to my patients. So, once my patient is happy I used to be happy. Of course, in the community you get a lot of satisfaction, people know you are a doctor and all. But, when I became a medical educator, I used to derive my satisfaction from my juniors, from my residents, from my medical students, from my colleagues, from my nursing people. So, they look at me with much more respect I feel now. There is already some amount of respect when you are a doctor, from your patients, from the community, from everyone, even from your own nurses and everybody. But when they see you teaching them, I feel that respect multiplies.

        So that is an opportunity I had to upgrade myself, to stand up in the eyes of others, in front of my own colleagues, in front of my co-professionals, like the allied professionals who are there. And then they, I feel, find me more approachable, and you yourself feel that, you know, you are able to give much more, so that makes you a better person, probably, and you feel you have an opportunity to give. And also it makes you more humble I feel, because…

I: How did you get an opportunity to give?

R: By whatever I have learned, my only way I was giving was to my patients, and now I'm exchanging the information with my residents, with my nurses, with everybody. So, I'm helping in improving the world system, I think.

I: So, what I'm hearing, is that you're saying, to be able to be given the chance to teach is in itself an opportunity?

R: It's an opportunity. It's more of a satisfying thing, a satisfaction at a different level, because after you become a doctor, whether you are a post graduate, or you are a super double graduate, the patient satisfaction level remains the same. The happiness you derive from patient satisfaction, you reach a particular level. But now you want to further satisfy yourself, like you know, how good you are?

So that satisfaction comes only when you teach better. So you are helping somebody to become a better doctor. And also, I feel that the other opportunity I get is, if somebody calls me a better doctor, then I am helping somebody to become a better doctor. It's an opportunity for me to make him a better doctor, so that he also can teach me better. Not only teach me better, treat me better. As a patient, when I come tomorrow, my own family members will come as a patient, so I feel when I myself am not in a situation to treat myself and treat my own family members, my near and dear ones, I want everybody else to be as good as I feel as I am, or as I feel somebody is. So that can be done, only by teaching, by seeing and teaching, teaching is an opportunity to see how good a doctor that person is.

Otherwise you are just so engrossed in your own world, you're not realising how much the other person knows, whether he is a good doctor or no. So you are giving him that opportunity also to become a better doctor, so that ultimately you will also get benefited. I think if people have that attitude, that tomorrow by teaching that he might become a better doctor, and he will treat you better, and itself will be an opportunity for people to teach. They should take it as an opportunity.

I: How is your institution here is helping you as a teacher?

R: By sending me for different courses, by sending me to different workshops, and they're helping me to become a better teacher, and very probably giving us an exposure to other societies, they give us an opportunity to speak in other societies, so you also get a name, so at work I would be known only to my institution, so once they know that I'm a medical educator, they recommend your name for other things.

R: You get an opportunity to speak in bigger forums. So, they give you all these opportunities. So, like, to go to international forums to speak and at a national level. Initially, you start at your institution level, at your department level, so you see also progression.

       So, if you are a better teacher, if you are a good educator they pick you up and they give you this opportunity. So, you go from department to institution level, from institution to inter-institution level, then you go national level and then you go to international level. So, the institution itself, the department, your superior there they identify you and they give you this opportunity and that itself gives you further confidence to become a better teacher. And also, it gives you more satisfaction because at the end of the day what you achieve by just doing your patient care and your work at the institution level is not enough. To progress further in life you need to be exposed to different societies, to different countries and all. And when you see you get to exchange your ideas with different people, you become a better teacher, a better person; you have better prospects in life. So, all of these opportunities you get by getting into education I think.

I: Imagine you are involved in a project to help others, yourself and others like you in a similar teaching situation and facing challenges. What support, help or training do you think you need to be able to do this job, to be part of this project, helping others?

R: A project to help others to teach? (I: Yes.). What are the challenges? (I: Yeah, of teaching.). Of teaching, yeah. The first and foremost is for every teaching opportunity that is given to them, they should get immediate feedback. There should be somebody assessing them. And the feedback should be, of course, in a sandwich manner, you know. Where you probably start with a positive and then in between say whatever the negative aspect that you have seen and again follow up with a positive thing, because, in no way, should the person be discouraged to teach.

I: So, what support would you need for that?

R: First of all, you give them an opportunity to teach. And then, I think everybody should be given an opportunity to teach after certain...as I told you that in my time, we knew that at this level everybody has to teach. So, from that you identify and encourage everybody to teach, but you identify somebody who is a good teacher. And always that should be from the feedback from the people you teach, the residents and the students who are attending. And then, take all that feedback and then identify who is a more trainable teacher. (I: So, are you saying that there should be a structure?). There should be a structured program. If it is at an institutional level then, definitely, there should be a structured program to identify good teachers and to give them an opportunity to teach. (I: Are you saying to me

institutional, do you think Royal Hospital should create such an opportunity?). I think every department should create an opportunity and the Royal Hospital is a much bigger forum. I think every department should create that. (I: Create a curriculum for teachers?). So, you make a schedule for teaching and it should first of all...the first the atmosphere should be geared up for teaching. There should be regular CMEs in every department. And in that CME everybody should be given an opportunity to speak. Speaking in this forum is in itself a teaching opportunity, when you speak in these forums. So, from those forums you identify who are good teachers. Like, everybody should be given regular opportunities. So, like, you have CMEs every year people will have a list of topics to talk and present on. And then, from that you identify who can teach better. These teachers should then be exposed to different workshops where they are actually trained how to improve their speaking ability, how to improve their teaching ability, how to improve their presentation skills, how to improve their...how to gain the attention of the students, how to make it more interesting for the students or the residents.

I: So, I am a director of this hospital and I am saying to you there is this project, you have to do it, what would you need?

R: So, first of all I would need, I would need, of course, infrastructure, I would need a room, I would need all the other facilities for teaching like teaching aids, boards and computers, and presentations and projections and a project and everything. And then I would need dedicated time, right.

        I would need a team. So, there should be a team who should be involved in developing this program. So, I will make a team where I will identify people who are interested or passionate about teaching. It's very important that the team itself can be passionate about teaching, so they can gather more people; they can identify people who are good at teaching. And probably this team itself if they need a workshop or something first, they themselves should get trained, probably a simple workshop or something finding, inviting somebody to teach the team. And once the team is well trained then they will find out, they will form...they will chart out the curriculum, like, we are going to do group discussions, we are going to have didactic lectures and we are going to develop a full teaching program at that department level or institute level. We have to decide based on what level we have.

        So, I personally am for a department level where the team should consist of one member from every department. So, the whole team now should be taught about the skills of teaching. So, then every department has to identify the teaching opportunities, they should chart out the program, what are the teaching opportunities that we have, it could be bedside, it could be weekly. And also, the different teaching models, like, it can be in the form of more committee meetings, it can be in the form of a case

based discussion. So, there is a structure, like, what kind of teaching needs are there and for different people, like. Teaching is not just for all the students and the residents teaching can be just for consultants. They can come and teach each other, like, keeping themselves updated. That is also a form of teaching. So, they need to find out what are the teaching needs like that, so that can be general meetings and also the whole programme will be charted out. And then, we will identify who will be the teachers now, and everybody will be given an opportunity to teach and in all the aspects. So, by the end of the day everybody will be exposed to different forms of teaching and then from that you will identify who is good in which aspect. And we will ask them to develop it further.

I: Absolutely. We are coming to the end of the interview and I would like to thank you. However, I would like to give you a chance to...if you would like to add anything else in regards to this?

R: I think overall, at present, I feel if you look at just the Oman perspective, I feel the OMSB is doing a great job by really...by making this teaching a formal affair. By structuring it well and having a regular assessment, having an accreditation, an international accreditation, so that we also know where we stand and whether we are, you know, on par with other institutes, you know. So, I feel the way things are going, itself is working very well. And people are realising, I think people just should be motivated and they should be encouraged more and more to teach. And the residents also, and the medical students should give regular feedback to their teachers. And also the students should encourage the teachers to teach, probably, you know. in our time, that is one thing that I also wanted to tell you, we were always motivated students. We really wanted our teachers to teach and we would run after them to teach, which is sometimes lacking here I think, from what I remember. (I: Do you think there is a reason?). Probably they feel that...I feel maybe one of the reasons they feel is that people are paid to teach, so they will teach them. And they have forgotten about what they are getting from them, from the teachers it's enough for them, they think. They don't realise that they can extract more from the teachers and sometimes...

I: Do you think it's the cultural thing?

R: It's like it's their culture not to run after things. And probably, it was our culture always to run; we would never get things easily. So, that is probably what always made us run after things. So, we were always pushing our teachers to teach, we never got it easy. But, here the students whatever they get they are happy, so they are not really running, they will not say no, no, please teach us, please teach us, like that. So, they are not really running after the teachers. So, that is why the teachers also like, you know, take it casually.

Sometimes you will feel like you will go for teaching and out of six students only three students would be there. And teachers will teach because it is...he has been paid to teach and he has been told to teach, whereas, in our country, when we were students, the teacher would not teach those three students, because three students hadn't turned up. And because of that the three students will make sure that the other three students come. So, that fear factor was there, it's not just a fear factor it was the desire to learn was there. And we would not lose an opportunity, so we thought this opportunity I will not lose it. So, if I know the teachers...some of the teachers are always nice and easy, they will teach even if there are two students. But, some of the good teachers would make sure that if those two students don't come, they will not be taught. So, the four students will make sure that the other students are there and those other two students will also think twice before bucking, you know, like, it was the attitude like, you know. So, I feel the students and the residents should also run after teachers in a sense make them feel that we want to learn.

So, teaching is always a two way process, you cannot just go on teaching, teaching, teaching if that person doesn't want to learn, learn, learn. (I: Absolutely, absolutely.). So, that is something I feel... (I: You want to add.). Yeah.

I: Thank you very much I appreciate your time and your information.

R: I hope it is something worthwhile.

I: Thank you very much.

End of transcript

Appendix 5: The Ethical Approval from UoE

Laila Al Zidjali
c/o Prof. Carolin Kreber
St Johns Land

26 July 2016

Dear Laila

Title: A critical realist exploration of influences on medical teachers' ability to embrace opportunities and to deal with challenges in their clinical educational roles

The School of Education Ethics Sub-Committee has now considered your request for ethical approval for the studies detailed in the above application.

This is to confirm that the Sub-Committee is happy to approve the application and that the research meets the School Ethics Level 1 criterion. This is defined as "'straightforward' non-intervention, observational research (e.g. analysis of archived data, classroom observation, use of standardised questionnaires)".

A standard condition of this ethical approval is that you are required to notify the Committee, of any significant proposed deviation from the original protocol. The Committee also needs to be notified if there are any unexpected results or events once the research is underway that raise questions about the safety of the research.

Should you receive any formal complaints relating to the study you should notify the MHSE Ethics Committee immediately by email to Shona Cunningham at s.cunningham@ed.ac.uk.

Yours sincerely

Dr S Bayne
Convener, School Ethics Sub-Committee

Appendix 6: The Ethical Approval from MoH

Sultanate of Oman
Ministry of Health
Directorate General of Planning and Studies

سلطنة عُمان
وزارة الصحة
المديرية العامة للتخطيط والدراسات

Ref. : MoH/DGPS/CSR/PROPOSAL_ APPROVED /38/2016

الرقم :...

Date : ....13.10.2016................

التاريخ:...

الموافق:...

Laila Moosa Al Zidjali
Principal Investigator

Study Title : **"A critical realist exploration of influences on medical teachers' ability to embrace opportunities and to deal with challenges in their clinical educational roles. (MoH/CSR/16/5129)"**

After compliments

We are pleased to inform you that your research proposal **"A critical realist exploration of influences on medical teachers' ability to embrace opportunities and to deal with challenges in their clinical educational roles"** has been approved by Research and Ethical Review & Approve Committee, Ministry of Health.

Regards,

Dr. Ahmed Mohamed Al Qasmi
Director General of Planning and Studies
Chairman, Research and Ethical Review and Approve Committee
Ministry of Health, Sultanate of Oman.

Cc
Day file

Appendix 7: The Ethical Approval from CoMHS

Sultan Qaboos University

COLLEGE OF MEDICINE & HEALTH SCIENCES

جامعة السلطان قابوس
كلية الطب
والعلوم الصحية

Ref. No. SQU-EC 077/16
19th May 2016

TO WHOM IT MAY CONCERN

Ms. Laila Al Zidjali, a PhD medical student from the University of Edinburgh, College of Medicine and Veterinary Medicine, Centre for Medical Education has submitted her research project to the Ethics Committee, College of Medicine & Health Sciences (COMHS), Sultan Qaboos University (SQU), Muscat, Oman for review and approval.

Ms. Al Zidjali's research proposal *"A Critical Realist Exploration of Influences on Medical Teachers' Ability to Deal with Challenges in their Clinical Educational Roles"* was presented and discussed during the Ethics Committee meeting of 31st March 2016. The project is in compliant with the current ethical standards of the committee and therefore approval was granted.

The research project is in collaboration with Dr. Nadia Al Wardy, Associate Professor, Department of Biochemistry, COMHS, SQU.

With kind regards,

Prof. Mansour Al Moundhri
Chairman, Ethics Committee
College of Medicine & Health Sciences
Sultan Qaboos University

:lrc

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صندوق البريد: ٣٥
الخوض – سلطنة عُمان
الرمز البريدي: ١٢٣
هاتف: ٢٤١٤١١٧٢ (٩٦٨+) فاكس: ٢٤٤١٣٤١٩ (٩٦٨+)

Appendix 8: The Ethical Approval from CoMHS

Provisional Codes from existing theory, literature and interviews:

Three (3) types: (O) organizational (topics for sorting the data for further analysis, (S) Substantive (description of respondents' concepts and beliefs), (T) Theoretical (Prior theory/ model/ idea/ system)

Codes were added; provisional codes were changed or deleted, as required over the course of coding. This process is to ensure that preconceptions about what to expect do not cloud what is happening.

Provisional Codes:

1. Enthusiasm for teaching (O)
2. Support for teaching (O)
3. Policy (O)
4. People (O)
5. Administrator (O)
6. Protected-time (O)
7. Knowledge about "what to teach" (O)
8. Training as teachers (O)
9. Facilitator of learning (O)
10. Interest in the subject matter (O)
11. Recognition/career progression for teaching (O)
12. Students roles in improving teachers skills (S)
13. Enthusiastic (S)
14. Apprentices model-students are around to learn from me (S)
15. Making things better than my time (S)
16. The difficulty of balancing teaching/research and clinical commitments (O)
17. Being adaptable in the teaching environment (O)
18. A sense of responsibility for training a future colleague (O)
19. Passion for teaching (S)
20. Role model (T)
21. Empathy or altruism toward students and residents (T)
22. Self-awareness (T)
23. Teachers' self-identity (T)
24. Authenticity (T)
25. Resilience (T)

26. Capacity Building (T)
27. Reflectiveness (T)
28. Identity (T)
29. Attentiveness (T)
30. Organizational culture (T)
31. Culture (T)

Added codes:

32. Approaches to teaching
33. authority and influence
34. awareness
35. being a good doctor
36. challenge as a medical educator
37. dealing with challenges
38. worries
39. characteristics and Qualities of medical teachers
40. Characteristics of Participants
41. Communication skills and human interactions
42. Educational methods
43. Ethical awareness
44. Future hopes
45. training as medical teachers
46. health system
47. hierarchy
48. empathy
49. Infrastructure
50. Interaction
51. international recognition
52. Management
53. North America syndrome
54. Assumption
55. Past experiences (historical)
56. Patients
57. professional values (professionalism)
58. relationships
59. Respect for others
60. Sense of responsibility
61. short exposure to the student has given them a bad impression about you as a teacher
62. stakeholders
63. system of education

64. The begging as teacher
65. The purpose of clinical teaching
66. The research environment
67. Humiliating environment
68. Stressful environment
69. Concern about patient's welfare
70. planning
71. resources
72. educational system's monitoring
73. Traditional clinical teaching
74. Training
75. Transition from old to new
76. workload
77. work beyond duty
78. worries
79. Lack of incentives and rewards for teaching