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Title of Dissertation: Understanding Information Practices of International Student Saudi Mothers During their Studies in the USA

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ABSTRACT

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PRACTICES OF INTERNATIONAL
STUDENT SAUDI MOTHERS DURING
THEIR STUDIES IN THE USA

Wajanat Rayes, PhD Information Systems, 2020

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International student-mothers face the challenges of fulfilling their motherhood responsibilities while pursuing their studies abroad. Despite the rich literature related to international students, international student-mothers received less attention. This dissertation aims to fill this gap by exploring the experiences and information practices of a group of International Student Saudi Mothers (ISSMs) during different phases of their studies in the USA. These phases cover their pre-arrival to the USA, early arrival to the USA, post early arrival to the USA, and during their preparation to return to Saudi Arabia. The Translocal Meaning Making five steps framework by Allard (2015), and Allard and Caidi (2018) was used to guide this research. This dissertation expands upon the TMM framework with a new sixth step that captures the time of preparing to return to Saudi Arabia. Qualitative research methods were adopted to answer the research questions through two study phases, an online survey and semi-structured interviews.

Results showed that ISSMs' daily experiences during their studies in the USA were challenging. ISSMs' information practices evolved over the course of their academic journey as their language and online search skills improved. ISSMs relied on their co-

nationals in the USA as a main source of information and emotional support. Preparing to return to their home country, ISSMs shared some concerns related to readjustment for themselves and their children. At this point in their academic journey, the main challenge was accessing this information online while they were still in the USA due to a lack of online content related to Saudi Arabia.

This dissertation contributes to the current literature on the information practices and technology uses of an understudied population of student-mothers during their academic journey in another cultural context. Findings from this research can inform institution officials, librarians, educators, and policymakers in both countries on how to help international students and mothers with cultural adjustment and academic achievement. Further, this dissertation informs system developers to consider culturally sensitive features for different user groups.

UNDERSTANDING INFORMATION PRACTICES OF INTERNATIONAL
STUDENT SAUDI MOTHERS DURING THEIR STUDIES IN THE USA

By

Wajanat Rayes

Dissertation submitted to the Faculty of the Graduate School of the
University of Maryland, Baltimore County, in partial fulfillment
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Doctor of Philosophy
2020

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Dedication

This dissertation is dedicated to

My parents Lama and Abdulrahman,

My husband Hassan,

My daughter Malak,

My aunts, Fatmah, Nadia, and Areej, and

My beloved aunt Ebtesam Rayes, may Allah bless her soul.

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Chapter 1 Introduction

1.1 Intro

“Sorry, I cannot come in today, my child is sick!” This sentence is not unusual for a parent as young children get sick frequently. The parent in such a case is expected to take care of the child as neither childcare nor schools will agree to have a sick child until they completely recover from the illness. Other options include asking friends, family members, or hiring a babysitter to care for the child. However, these options might not be available for all parents who might not have family living close by. Such parents are international students who happen to be a parent as well as a student. These types of parents lack the support they would normally receive from their families who are overseas and their friends are mostly other international students who also have other commitments. This example was based on my personal experience as a mother and an international student.

A few years ago, I came from Saudi Arabia to the USA to pursue my graduate studies. I was full of excitement but worried at the same time. I had many questions circling in my mind: how will I learn, are my English skills proficient, how should I speak to my professors, will I succeed in the trial/limited scholarship time I have? With all these questions, I knew one thing for sure: success is a must, as I could not fail myself or my family back home. The social pressure was tremendous to be successful since studying abroad is viewed as a unique opportunity that should be well utilized. As I was juggling my academic life and sifting through daily information to settle into this new country, I was also seeking stable care for my child as I became a new mother shortly after I came to the USA.

I needed the time to understand how the care system worked for young children in the USA. I knew how to search and find nearby my home daycares and babysitters, but that was not enough. I wanted to hear from other mothers who I would trust more than a random review on Google. Mothers always trust mothers as an information source. However, as I was new in the host country, I did not know many mothers yet.

Mother-to-mother information was mostly exchanged during ethnic gatherings as many Saudi females and mothers arranged periodic meetings (weekly or bi-weekly) in the USA. Those meetings depend on the percentage of Saudi presence in that place, and mostly happened in physical spaces such as their homes. I could not always attend these kinds of meetings due to scheduling conflicts. Back at the time (around 2011), using social media platforms to exchange this type of information was not popular yet within my cultural group.

Before I came to the USA, I read many posts on traditional forums which discussed various topics related to studying abroad. However, much of this information was general and, in some cases, outdated. The challenge was to get updated and relevant information, yet I could not always attend the meetings in which much of this information was circulated. At some points, as a mother who is a student, I felt isolated as I could not assimilate with similar groups in my town. My social support back in Saudi Arabia was great but could not provide me with information relevant to an American context, and I did not feel as though I completely belonged to any other groups of international students who were not parents or international students from Saudi Arabia.

Then something happened, I found a new social hub that had a wealth of updated and relevant information, it was Instagram (a social media platform that created around 2010). With the rise of smartphones and the adoption of Instagram by Saudis, many accounts had been created specifically to assist international students in a wide range of new places.

With Instagram, I could stay up to date on information, ask questions, and have the convenience of accessing information at my own convenience. I branched out to other forms of social media later, but Instagram was what I used first.

For me, social media was the coping mechanism that I developed to navigate a new information landscape, to stay connected to other international students from my culture, stay connected to my family and friends in Saudi Arabia, and to stay updated on the current trends in my home country while I am away. This access made me feel less isolated as well as more up to date, especially when I did not have many social connections early into my stay in USA.

After a period of time in the USA, one of our neighbors suggested that we visit one of the public libraries as they have many services for young children. I hesitated to go at first as I was unsure and afraid to go to a library other than my campus' library, but eventually I decided to go. It was a great experience as it provided a safe place for my child to play and meet other children while I could see her and do some of my academic work. Upon reflection, I regretted not visiting public libraries before. I did not know the possible services the library could provide. When my child got older, she became my facilitator to the host country's culture as I learned many things from her school and teachers. These moments of confronting challenges and then finding ways to cope made me feel stronger and more resilient.

I believe such moments were not unique to me as other mothers have to confront their own challenges. Motivated by my experience, I wanted to study other mothers' experiences and the role of information during their cultural transition. From my experience, I have found that information and the support from information channels such as libraries and social media platforms, helped mitigate the challenges I faced as a transitional mother student. Accordingly, in this research I wanted to explore information practices of other student-mothers, particularly, international

student Saudi mothers (ISSMs) in the USA. Including how they searched for information, how knowledgeable they were of available sources (such as public libraries), and the coping mechanisms they developed while they were away from their home country. In the following sections, further details about the research and the sampled population is given.

1.2 Problem statement

The number of students studying overseas has continued to grow globally in recent years. In the USA alone, the percentage of international students increased by 3.4 percent in the 2016-2017 year (Institute of International Education, 2018). Among the top 25 countries of origin, Saudi Arabia comes in the fourth position of the countries sending students to the USA (Institute of International Education, 2018). This position is most likely because the current initiative of the Saudi government scholarship program, which widely enables many Saudi students to study abroad (Winters, 2015).

Being a student in a foreign country can be an exciting and challenging experience at the same time. Adjusting to a new environment, culture, and language are some examples of the challenges faced by international students. In addition, for being an international student, in some cases, international students who are parents can encounter other challenges such as fulfilling family and childcare responsibilities while pursuing their studies. Being a parent, and particularly a mother in a foreign country could add to the challenges of being an international student. In such a case, student-mothers is responsible for finding proper childcare/school, helping their children adjust to the new environment, culture, and language while at the same time trying to maintain their culture's identity and respond to cultural expectations. All of these responsibilities add to the experiences of being an international student, facing academic challenges, and balancing personal and academic lives amidst competing cultural expectations.

Therefore, the topic of international students continues to capture the attention across scholars in many academic fields such as education and cultural studies in an effort to better understand international students' experiences, challenges, and the adjustment process (e.g. Ahmed, 2016; Herzog, 2012; Lefdahl-Davis & Perrone-McGovern, 2015). One important aspect of this transition is the role of information in the transition. In the field of information science, Caidi et al. (2010) noted that providing information to immigrant groups can help them adjust and be socially included into their host countries. Similarly, providing information to international students can help them adjust better to their host country and achieve better academic performances (Yoon & Chung, 2017). Many scholars in the field of information science studied international students' information behavior/practices and technology uses. These studies provide much insight on international students' information needs, information sources, use of libraries, use of social media and technology (e.g., Catalano, 2013; Chung & Yoon, 2015; Oh & Butler, 2016; Saw et al., 2013; Sin & Kim, 2013).

Despite the number of studies focused on the information behavior/practices of international students, less focus was paid toward international students from Saudi Arabia or mothers who are also students. An exception to this observation is the studies of Binsahl and colleagues (2015a; 2015b). In their work, they explored the information needs of Saudi females during their studies in Australia and their use of social media. Despite the insights provided by their studies into information behavior/practices of an understudied international student population, aspects related to motherhood and children information needs were not the focus of their exploration. Moreover, the number of studies that explore information behavior/practices of mothers and their use of technology (e.g., Davis, 2015; Fisher & Landry, 2007; Loudon et al., 2016; Morris, 2014), did not consider mothers who are also students or international students.

Therefore, this research aims to fill this gap by exploring information practices and information roles of ISSMs during their studies in the USA. The following section will specifically state the research questions.

1.3 Research questions

- 1) What are the experiences and challenges facing ISSMs during their studies abroad in the USA?
- 2) What are information practices (information needs, information sources, information seeking behavior and information sharing behavior) of ISSMs while studying abroad in the USA?
- 3) How do the information practices of ISSMs change over time during their studies abroad?

These questions pinpoint specific phases in the life of ISSMs. These phases are 1) while they were in Saudi Arabia before coming to the USA, 2) during their early arrival to the USA, 3) after their early arrival to the USA, and 4) during their preparation to go back to Saudi Arabia. The following section reviews and defines related information concepts used in this research.

1.4 Information concepts

While some scholars see information behavior and information practices as alternative terms (Case & Given, 2016), in this dissertation I primarily use the term information practices. The term information practices accounts for active and non-directed information seeking as discussed in (McKenzie, 2003). This term also covers how individuals seek, use, and share information in a social context as defined in Savolainen (2008). I also used a theoretical framework in this research that was based on the notion of information practices (Allard, 2015; Allard & Caidi, 2018). Accordingly, it is more appropriate to use the term information practices in this research.

Other information terms which were used in this research are information needs, information seeking behavior, information use, and information sharing. Information needs refer to a gap in an individual's knowledge needed to achieve a specific goal. Information seeking behavior is the effort individuals make in response to a need or a gap in their knowledge. Information use refers to what individuals do after they get the information either from active information seeking or accidental information encountering. Information sharing refers to the act of sharing information with another group of individuals (Case & Given, 2016).

To satisfy a specific information need, people use different information channels such as books, people, libraries, search engines, and social media. These information channels are called information sources. When discussing social media, I am referring to online social media platforms or networks such as Facebook, Twitter, or YouTube.

Relevance refers to the match between searched information and the retrieved results (Case & Given, 2016). Irrelevant results can be returned to searches and causing frustration and inefficiency in information seeking. This is an important concept in information science as it is necessary to find and return relevant results to help users move forward.

Lastly, another information concept which is also used in this document is the information landscape. Lloyd defined the information landscape as “an intersubjective space that reflects the taken for granted and agreed modalities and sources of information that people who are engaged in collective enterprises and performances agree upon and legitimize” (Lloyd, 2017, p.39). Lloyd further explained that when people enter a space, such as a new culture or community, they need to learn about aspects that shape that space such as cultural, economic, and political (Lloyd, 2017). The information landscape was an important information concept which I used to describe parts of ISSMs' information practices during their academic journey in the USA. This section briefly

defined the related information concepts which I used in this research. The following section presents the rationale for selecting the population.

1.5 Rationale for selecting the population

This research aimed to explore the role of information and information practices in the life of ISSMs in the USA. Focusing on this particular group of international students can be justified by many reasons. First, the population of Saudi international students in the USA comes in fourth place among international students from other countries around the world (Institute of International Education, 2018). Despite this continued growth in the number of Saudi students, few studies have considered their information practices during the transition. This growth of new Saudi students is fueled by the Saudi government scholarship program, which enabled many Saudis to pursue their studies around the world. Further, although the Saudi scholarship program is not limited to the USA, America has the most significant number of Saudi scholars when compared to other countries. The number of Saudi students in the USA is 53,127. That number accounts for roughly 55% of the total number of Saudis studying abroad (Saudi Ministry of Education, 2018). Because the majority of Saudi students being in the USA there is a larger access to a pool of ISSM participants as compared to other countries. Further, as each country has its own educational and information structure, I limited my sample to the USA as a first step in having a deep understanding focused to one country and context.

Second, I am only focusing on Saudis overseas who are students but not immigrants. The reasoning for this is while there might be Saudis who are immigrating to other countries, this specific group has not been documented in the existing literature. Further reaching out to Saudi immigrants, would not be easy. As an insider to Saudi culture, I have noticed that Saudis do not discuss immigration because they are expected to return to Saudi Arabia after completing their

studies. The fact that this population wants to return to Saudi Arabia has a strong impact on their experiences, challenges, and information practices in the USA. From an informatics perspective, the population of international students provides a fruitful group to explore the challenges they face in their academic and daily life given the role information plays in facilitating their educational experience.

Third, in addition to the role of being an international student, I included the role of motherhood for my population of study. Mothers who are international students face the dual expectation of being a successful student while maintaining the responsibilities of motherhood. These responsibilities include finding proper childcare/school, and helping their children adjust to the American culture, while at the same time maintaining their home (Saudi) culture's identity and traditions.

Fourth, the decision to focus on Saudi student-mothers only and not include Saudi student-fathers was due to cultural traditions. Mothers are usually the main caregiver for children in many cultures. This is particularly true in Saudi Arabian culture. Further, as I am an insider to Saudi culture, I believed that being a female and a mother myself would make it easier to reach other Saudi mothers. Reaching Saudi student-fathers would prove to be difficult because of cultural norms (women prefer to interact with women, while men prefer to interact with men in Saudi culture). The cultural role of mothers and these aspects of social norms in Saudi Arabia will be further discussed in chapter 2.

1.6 Methodology

To answer the research questions investigated in this research, I conducted two studies: first, an online questionnaire/survey and second, semi-structured interviews. The online survey aimed

to provide a general overview of the context and findings of this research as well as to provide access to a wider range of participants. Building on the surveys' responses, the second phase was conducted. In the second phase, the data was collected through semi-structured interviews as it provided a more in-depth understanding of ISSMs' experiences and their information practices during their studies in the USA. Participants in both studies were Saudi international students and mothers in the USA, who were at least 18 years old, and had at least one child residing with them in the USA. More details about the methodology is given in chapter 4.

1.7 Theoretical framework

I used Translocal Meaning Making framework of Allard (2015) and Allard and Caidi (2018) to guide the findings from this research. According to Allard and Caidi (2018), TMM framework consists of five steps. These steps are 1) Imagining Winnipeg, 2) Information dissonance, 3) Increasing sophistication and understanding of Winnipeg information landscape, 4) Reimagining Winnipeg and the Philippines, and 5) Social imaginary of Philippines to Winnipeg migration is reimagined. Figure 1 (Allard & Caidi, 2018, p. 1201) shows the TMM five steps.

The TMM framework originally emerged from an investigation of information practices during the migration journey of Filipinos to Winnipeg, Canada. Later, the TMM framework was used to guide the information practices of Muslims' Hajj journey to Makkah (Caidi, 2019), and information practices of older Chinese adults during their migration journey to Canada or Australia (Caidi et al., 2019). The population investigated in this dissertation is a group of international students, ISSMs, who planned on going back to Saudi Arabia after they finish their studies. Therefore, I extended the five steps of TMM framework to a sixth step in order to capture the preparation time phase and the information practices during that time (see Figure 2)

Using the TMM framework provided a robust theoretical base to guide the findings from this research. The TMM framework includes the components of the daily experiences and information practices of newcomers re-locating in unfamiliar places. These daily experiences included motivations to start a journey, feelings, concerns, challenges, and adjustment strategies. Aside from the experiences, the TMM framework also provides a deep understanding of information practices during each phase of the journey (Allard, 2015; Allard & Caidi, 2018; Caidi, 2019; Caidi et al., 2019). For these two main aspects, experiences and information practice changes over time, the TMM framework was adopted to guide our understanding of ISSMs' experiences and information practices during their academic journey in the USA. Further details about the TMM framework steps are presented in chapter 6 and chapter 7.

Figure 1 Shows the five steps of the TMM framework (Allard & Caidi, 2018)

1. Imagining Winnipeg—As they plan and prepare for migration, participants in the Philippines draw from stories, media, photos, and socially circulating narratives or “social imaginaries” (Appadurai, 1996) to imagine Winnipeg, their future lives in Winnipeg, and to develop specific expectations about arrival and settlement.

2. Information dissonance—Departure from the Philippines. Rupture. Reality gap. Upon arrival to Winnipeg, everyday experiences reveal to participants how much they do NOT know about the arrival context. Information encounters in the new landscape create confusion and disorientation as participants realize that what they thought they knew about Winnipeg doesn’t “match” their own impressions of the place they imagined.

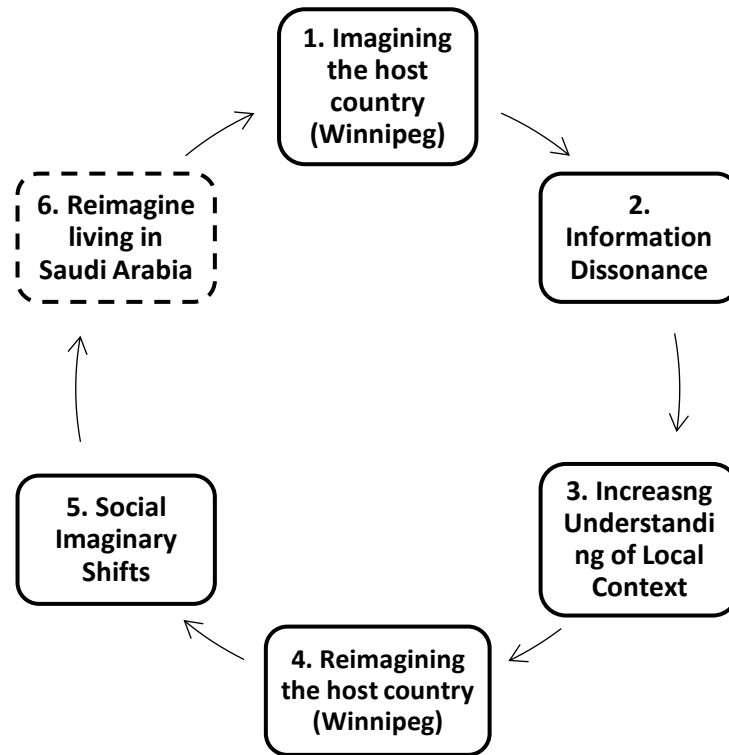
3. Increasing sophistication and understanding of Winnipeg information landscape—As participants settle in Winnipeg, their personal settlement experiences and growing familiarity with Winnipeg leads to a growing understanding of the local Winnipeg “information landscape” (Lloyd, 2010). Ongoing reconsideration of the knowledge(s), imaginaries, and expectations with which participants arrived to Winnipeg occurs.

4. Reimagining Winnipeg—Participants reimagine their understandings of Winnipeg as they process and make sense of the growing tacit and experiential knowledge gleaned from their time in Winnipeg. Taking into account their newly formed experiences and perceptions, both Winnipeg and the Philippines are reimaged.

5. Social imaginary of Philippines to Winnipeg migration is reimagined—As newcomers tell their own migration stories and give advice to would-be migrants looking to migrate to Winnipeg, the Philippines to Winnipeg social imaginary shifts to accommodate new articulations of migration upon which would-be-migrants rely to develop their own migration expectations.

Note. Reprinted from “The translocal meaning making of Filipino migrants to Canada” by Allard, D., & Caidi, N. 2018, *Journal of the Association for Information Science and Technology*, 69 (10), 1193-1204

Figure 2 Shows the original five steps of TMM framework adapted from Allard and Caidi (2018) with the sixth extended step from this research



1.8 Significance and contributions

This research contributes to the current literature on information practices of international students and mothers in many ways. First, this research extends our knowledge on the information practices of an understudied population during their academic journey in another cultural context. There is less focus on studying the information practices of international student-mothers in the context of being from Middle East countries in general and Saudi Arabia in particular. The strong set of dual cultural and role expectations for ISSMs makes the transition difficult and information can play many roles in helping them during their academic journey.

Second, this research applies the TMM framework (Allard, 2015; Allard & Caidi, 2018) to a new population. Applying TMM frameworks helped mapped the findings of ISSMs' experiences

and information practice changes over time during their academic journey. The time phases explored in this research were pre-arrival to the USA, during early arrival to the USA, after early arrival to the USA, and during preparation to go back to Saudi Arabia. Accordingly, the five steps of the TMM framework was extended to a sixth step to capture the preparation time phase and the information practices during that time. Information practice changes over time were noted in previous research into the life of newcomers such as immigrants, refugees, and international students. Still, the phase of preparing to go back to the home country received less attention in the previous studies.

Third, findings from this research can inform groups interested in helping international student and mothers with cultural adjustment and academic achievement during their educational journey. These groups include positions such as institution officials, librarians, educators, and policymakers. Facilitating a successful experience for international students while in the host country is beneficial for both countries involved. For the USA, having more international students on academic campuses will help promote diversity, bring new expertise from different countries, and encourage economic growth. If a particular school provides better accommodations to mothers' needs such as providing on-campus daycares, this could encourage other mothers to consider that school. For Saudi Arabia, having this group of scholars succeed means they will bring back the educational expertise and new skills they learned back to Saudi Arabia. For instance, returning students would emphasize academic libraries' roles or seek help in establishing more public libraries' services.

Fourth, the research aims to inform system developers and technology makers of the importance of considering culturally sensitive features and design for different users' groups. Sharing personal pictures, for instance, is a requirement to create an account on some social media

platforms or to be recognized as professional on job-seeking platforms (e.g., LinkedIn). However, particularly in the context of Saudi Arabia, the act of females sharing their personal pictures publicly on social media is a sensitive topic.

Finally, this research documents the learned lessons from ISSMs' experience so other international students, mothers in particular, can benefit from this experience. For example, what should culturally transitioning students expect when they come to a new information landscape and how can they develop ways to help them succeed based on the previous student-mother' experience. Although this research is not intended to generalize the findings to all mothers' populations, these learned lessons can also help other mothers in similar positions such as domestic student-mothers.

1.9 Summary and dissertation structure

This chapter provided an overview of the problem statement, research questions, rational, information concepts, methods, and theoretical framework used in this research. Further, it presented the research significance and contribution to the field of information science and interested groups in helping international students during their academic journey.

The next chapters are organized as the following: chapter 2 provides a brief background of Saudi Arabia considering the population explored in this research are individuals from Saudi Arabia. Chapter 3 presents related work in the field of information science of similar populations to ISSMs. Chapter 4 presents the methodology used to answer the research questions. Chapter 5 presents the findings and discussion from the first study, the online survey. This is followed by chapters 6, 7, and 8 where findings from the second study, the interview study, are presented and

discussed. Finally, chapter 9 provides a summary of the findings for both studies and the implications from this research.

Chapter 2 Background on Saudi Arabia

In this chapter I will present a brief overview of Saudi Arabia as it is the home country of the main study population, international student Saudi mothers (ISSMs). Understanding the cultural aspects and the place where ISSMs came from will help in understanding ISSMs' perception, background, ways of learning, adjustments to the USA, and subsequently the factors that shape their information practices.

2.1 Location

The official name of Saudi Arabia is the Kingdom of Saudi Arabia (KSA), though in this document I will refer to it as Saudi Arabia. The kingdom was established in 1932 by King Abdul Aziz Al-Saud (Alayed, 2016). Geographically, Saudi Arabia located in the southwest of Asia. The country covers about 80 percent of the Arabian Peninsula (2.25 million square kilometers), which is approximately equal to one-third of the United States' size. Most of the regions in Saudi Arabia have a dry desert climate, which means high heat during the day followed by a drop in the temperature during the night with low annual rainfall (Long & Maisel, 2010). The population in the kingdom reached approximately 32.5 million people in 2015 (Abokhodair, 2017).

2.2 Language

This population speaks Arabic as the official language of Saudi Arabia. While teaching English is required in the education system in Saudi Arabia, the English curriculum taught is basic and it taught in a compact way. Therefore, students may not develop satisfactory levels of English skills as noted in Ahmed (2016).

2.3 Religion

The kingdom is considered part of the Arab States, Middle East, and Islamic countries. Saudi Arabia holds a special value for Muslims around the world. The Arabian Peninsula was the birthplace of Islam, and Saudi Arabia is the home country of the two holy Islamic cities: Makkah (has *Al-Haram*- the Holy Mosque) and Al-Medina (has *Al-Masjid an-Nabawi*- Prophet Muhammad's Mosque). Muslims around the world, if possible, are expected to visit Makkah at least once in their lifetime to perform Hajj. Hajj is one of the five pillars of Islam that Muslims should maintain as part of being committed to Islam. Consequently, it is not surprising that all Saudis are Muslims and Islam is the official religion of the Kingdom (Long & Maisel, 2010).

2.4 Culture and Constitution

In Saudi Arabia, all aspects of daily life and the constitution follow the Islamic laws known as Shariah, constructed by the Holy Islamic book (*the Quran*) and the practices of Prophet Muhammad (*The Hadith*) (Abokhodair, 2017; Alayed, 2016). In addition to the Islamic constitution, the nomadic (Bedouin), and Arab customs also influence the social interactions and daily life. Saudi Arabia is one of the most conservative and closed societies (Long & Maisel, 2010).

The Saudi community and culture have a collectivistic nature (Abokhodair, 2017). In collectivistic societies, individuals belong to cohesive groups that protect them in exchange for loyalty (Hofstede, 1997). In Saudi Arabia, individuals prioritize the needs and values of the family over their own (Alhajjuj, 2016). Further, Saudis maintain strong connections to their direct families and extended families (Abokhodair, 2017). Consequently, the family is an important unit in Saudi society, and it is considered a major source of support in the life of Saudis (Alhajjuj, 2016).

2.5 Gender differences

All aspects of daily life in Saudi Arabia, including gender roles, are constituted by Islamic laws as well as cultural traditions. In Saudi Arabia, gender segregation is a main aspect in daily life. This gender segregation is reflected not only in physical spaces (e.g. in schools, universities, and government centers) but also in policies and regulations. For instance, females are only taught by female teachers in public schools and similarly males can only be taught by male teachers. In public, or in the presence of unrelated men, women wear wide long robes, known as *Abaya*, and cover their hair and their faces with *Hijab* or scarf to maintain privacy in public (Abokhodair, 2017). Saudi women's dress code in public serves as an extension of privacy to minimize the gaze of unrelated men (Abokhodair, 2017). This extension of privacy does not extend to male in Saudi society, men are not required to cover their faces or hair and have more freedom to wear what they like in public. The traditional attire for Saudi men is called *Thobe*, which is a gown that mostly is white, but there are other colors too. In addition, particularly for formal settings such as work, weddings, funerals and religious ceremonies, Saudi men wear a black headband called *Egaal* and a scarf on their heads. The scarf can be white (*Ghoutrah*) or red (*Shimagh*) ("Saudi Arabia Cultural Information", 2018). Other colors of this scarf are available but the white and the red colors are the most common for the men's headscarf.

In a conservative, closed society which also maintains a gender-segregated environment, relationships between females and males outside the family context can be viewed as inappropriate. This cultural normative restriction on relationships between both genders contributes to limited avenues of employment for women, confining them to careers in teaching mostly (Alhajjuj, 2016). There are few fields, such as the healthcare sector and some companies

which have mixed-gender environments, but the majority of jobs are still male-dominated in Saudi Arabia (Alhajjuj, 2016).

Women's social and economic independence heavily relies on their legal guardians in Saudi Arabia. The guardian is a woman's male relative. For a married woman, the guardian is her husband, while for a non-married woman the guardian can be her father, brother, uncle, or sometimes the son if the woman is widowed or divorced. In the Islamic traditions and Saudi Arabian culture, the male head of the family is required to support their families financially, even if the women in their families were working and earning an income (Al-Khateeb, 1998). In many aspects of life in Saudi Arabia, the guardian's approval is required for women such as travel, issuing official documents, education, and jobs (Abokhodair, 2017). Many of these long-standing cultural traditions that restrict women's independence have recently been changing in Saudi Arabia. For instance, on June 24, 2018 the ban on women driving was lifted in Saudi Arabia (Kennedy, 2017). Allowing women to drive is not the only policy change that occurred for women in Saudi Arabia, other changes for women include expanded job opportunities and leadership positions (Aldhahri, 2019). These changes took place while ISSMs were in the USA which would impact their perception and information practices while preparing to go back to Saudi Arabia.

2.6 Family roles

The family unit holds a very important role in Islamic traditions and Saudi culture. Inside the household of a Saudi family, women/mothers are the main childcare providers and home makers, while the men/fathers are mainly responsible for providing the financial support for the family (Pharaon, 2004). According to Harper (2007) as cited in Alhajjuj (2016), traditionally, women were not encouraged to work outside their homes, but rather they were encouraged to stay home and take care of the children while their husbands provided the financial support. Pharaon

(2004) noted, “Women are perceived first and foremost as wives and mothers, and gender segregation is customary. To earn status, women must marry and reproduce” (p. 361). Thus, it is not unusual for women in Saudi Arabia to marry and have children at a young age (Mobaraki & Soderfeldt, 2010). Indeed, in a recent survey by the Saudi Census indicated that the average age of the first marriage for Saudi women was 20.4 years old (Jarrah, 2018). Thus, if Saudi women plan to pursue education abroad, it is likely that they will be married and will most likely be mothers as well.

In the Saudi culture, children are highly appreciated (Al-Khateeb, 1998). Parents, extended family members (particularly women such as grandmothers and aunts), and foreign maids which some Saudi families have, all help with childcare duties (Al-Khateeb, 1998). According to Al-Khateeb (1998), in the Saudi culture, when a man marries he expects his wife to “cook his food, clean his house, produce children who perpetuate his name...It is not considered appropriate for a Saudi man to cook or clean or change his children’s diapers. Domestic work is feminine work, and men should not be involved in it” (p. 182).

Having many children in the Saudi culture is socially encouraged as children are perceived as a blessing from Allah and an indicator of marriages’ stability (Al-Khateeb, 1998). In Al-Khateeb’s (1998) study, the average number of children was 6.4 per family. Though, the average number of children per Saudi woman is declining (2.32 children born per woman) according to recent statistics (Plecher, 2020). Children are obligated to respect and obey their parents (Abokhodair, 2017). Despite the children’s age, they always remain under their parents’ authority (Abokhodair, 2017), and they do not leave their parents’ house until they get married.

The Saudi government allows for equal access/ chances to obtain overseas scholarships for men and women. As many Saudi women can be married at an early age, it is not surprising that

many women would take advantage of the scholarship program while having young children. The scholarship program has an age restriction for each degree (e.g. applicant should be 22 years old or less to be eligible to apply for undergraduate level). In Saudi culture, it is not viewed as feasible for women to put their family life on hold to pursue more education and to not have children while pursuing their studies overseas given the length of time it takes to complete an academic degree. Still, even when Saudi women and men study overseas, they maintain their respective cultural parenting roles. In Alhajjuj's (2016) study, some of the international student Saudi mothers in her sample indicated that their husbands supported them emotionally and sometimes physically. By physically the women in her study were referring to their husbands' help with childcare and household matters such as cooking and washing dishes. Still, most of the housekeeping and childcare duties remained the mothers' responsibilities despite being students and living in another cultural context (Alhajjuj, 2016). The minimal amount of husbands' physical help inside the household can be traced back to traditional Saudi cultural norms, i.e. the way boys and girls were raised since they were children as they learned from their parents, relatives, and society (Al-Khateeb, 1998). Because the majority of Saudi international students return home after studying abroad, it is not surprising that these cultural norms are maintained even when living overseas. Given this expectation of return, ISSMs are expected to keep their cultural role of being wives, mothers, and housekeepers, while being students in the USA. These cultural norms provide the backdrop from which ISSMs must temporarily navigate and adjust in the USA.

2.7 Economy

Concerning the Kingdom's economics, the country is new to wealth as oil was discovered in 1936. Since then, Saudi Arabia became one of the main oil producers in the world. The revenue from the oil was used to advance the Kingdom's economy and infrastructure (SACM, 2018). The

Kingdom established free healthcare and public education; healthcare and education sectors receive most of the government budget annually. The healthcare in Saudi Arabia is free for Saudi citizens and public schools and public universities are free.

2.8 Education and overseas scholarships

The education sector in Saudi Arabia is an important sector which receives frequent development and does not only include advancing the education resources inside the kingdom, but it also extends to educating Saudi citizens outside the kingdom. Providing scholarships for Saudi citizens has a long history in Saudi Arabia, yet the largest one in the history of Saudi Arabia is the scholarship program established by King Abdullah known as KASP (Taylor & Albasri, 2014). In 2005, King Abdullah and American President George Bush, initiated an educational agreement between Saudi Arabia and the USA. Although it started between Saudi Arabia and the USA, it now includes many other countries around the world. The scholarship program is still in effect up to the time of writing this document. The scholarship program enabled many Saudi students to pursue academic degrees at the undergraduate or graduate levels. Many Saudi students took advantage of these scholarship opportunities. In the USA alone, Saudi Arabia still holds the fourth position in the number of students sent to the USA, among the top twenty-five countries for the academic year of 2016-2017 (Institute of International Education, 2018).

The scholarship program provides tuition and fees, health insurance, a monthly stipend, as well as one annual trip to visit Saudi Arabia and return to the host country. The requirements to be qualified to get a scholarship in Saudi Arabia is to be a Saudi citizen, in good academic standing, and having chosen a major of study, country, and an institution approved by the ministry of education in Saudi Arabia (Saudi Ministry of Education, 2018). Moreover, there are certain age range requirements based on each phase (e.g. applicant should be 22 years old or less to be eligible

to apply for undergraduate level). These requirements are for both male and female students though in the case of women, there is one more requirement. In order for Saudi women to be qualified to apply to the scholarship program, they need to gain an approval from their legal guardian (father, brother, uncle, husband, or son). Further, during the study abroad, the guardian is expected to reside with his female relative during her entire study in the host country (Taylor & Albasri, 2014). Though in some cases, guardian may need to leave the host country and go back to Saudi for different reasons as it will be introduced later in the findings of this dissertation.

If the guardian chose to accompany his female relative in the host country during her study, he also receives the same benefits of the scholarship. Benefits include the monthly stipend, health insurance, annual tickets, and tuition fees in case he chooses to study. Further, if the female student happens to have children, they will also be covered through the health insurance and receive a limited stipend (Alhajjuj, 2016). For male students who are married and have children, their wives and children receive the same benefits as compared to female students. However, married males are not required to have their wives accompany them in the host country unless they want to. The scholarship program is not the only way that Saudi students can study overseas, there are other ways. These ways are through scholarships provided by private sector companies, public universities, and in some cases, students can be self-funded. However, as KASP scholarship program remains the most widely used program, it necessitated the most detailed description. In this research, I am focusing of ISSMs in the USA regardless of their scholarship type or funding sources.

The scholarship sponsors in Saudi Arabia expect students to return to Saudi Arabia after their studies in the host country. These expectations of return strongly influence students' experiences, challenges, and information practices. The certainty of return to Saudi Arabia also

differentiate Saudi students from other immigrant and international student groups. Other immigrant groups come to the USA to stay. Most international students have a multitude of options. They may plan to go back to their home country, stay in the USA, or go to a third country. ISSMs do not have a choice in this decision because they are expected to go back to Saudi Arabia. ISSMs are only in the USA temporarily. This expectation of return influences their experiences, challenges, and information practices as will be presented in the findings. ISSMs' goals and behaviors are driven by their ultimate plan of going back to Saudi Arabia. In their constant preparation of going back they also need to prepare themselves and families to return and readjust to Saudi Arabia. This ultimate goal of going back to Saudi Arabia makes ISSMs' experiences and information practices different from other groups of international students and immigrants.

2.9 Information centers and technology adoption in Saudi Arabia

As discussed above, the revenue from the oil helped the kingdom to advance many sectors including technical infrastructure and information centers (Alayed, 2016). The internet, for instance, was made available for the public in 1997 and since then, the adoption of internet services is continuing to grow among the Saudi population (Abokhodair, 2017). Similar to internet adoption, the penetration of smartphones and social media is growing fast. Saudi Arabia adoption rate for smartphones is 75 percent compared to other Middle East countries (Alayed, 2016), and Saudi Arabia rank in the 7th position globally related to social media penetration (Abokhodair, 2017).

Several different types of libraries operate in Saudi Arabia. Schools' libraries, academic libraries, national libraries, specialized libraries, and public libraries available to people (King Fahad National Library, 2018). Of interest to this research are academic libraries and public libraries which will be discussed throughout the document. Academic libraries are located inside

public universities' campuses and their main role is to provide academic information. Thus, it mainly targets students and faculty and their academic information needs. Similar to academic libraries, public libraries in Saudi Arabia provide a wide range of books and academic references, and while it might serve a different population, their main target populations are students and researchers.

The existence of different kind of libraries in Saudi Arabia shows the availability of good information infrastructure. Still, related to the community role public libraries may provide, it is considered limited compared to public libraries in the USA. Therefore, it might not be surprising that students from Saudi Arabia may lack the awareness of the community services provided by public libraries in the USA. Public libraries in the USA offer services such as book clubs, story time, and crafts for children, so it is not only limited to students and researchers. This observation of the lack of a social role to libraries in Saudi Arabia is based on my experience and the current state of literature related to libraries in Saudi Arabia. Most of the scholarly articles related to libraries in Saudi Arabia were focused on academic libraries (e.g. Al-Qublan, 2010; Basqr, 2007; Khurshid, 2013; Matook & Abu El-Khair, 2016) and had less consideration of public libraries or their community role in Saudi Arabia. Though the social role of libraries in Saudi Arabia is starting to gain more attention, it is still emerging. Therefore, these aspects related to the awareness, use, and perceptions of academic and public libraries services were parts of this research exploration particularly in the life of ISSMs.

2.10 Here and there: Saudi Arabia, the USA and ISSMs

Despite the high adoption of smartphones and social media networks, the existence of libraries, and teaching of English language in public schools, Saudi students still face many challenges when they study abroad as reported by many scholars (more details will be presented

in chapter 3). These challenges are cultural and informational, despite their academic stance or language skills.

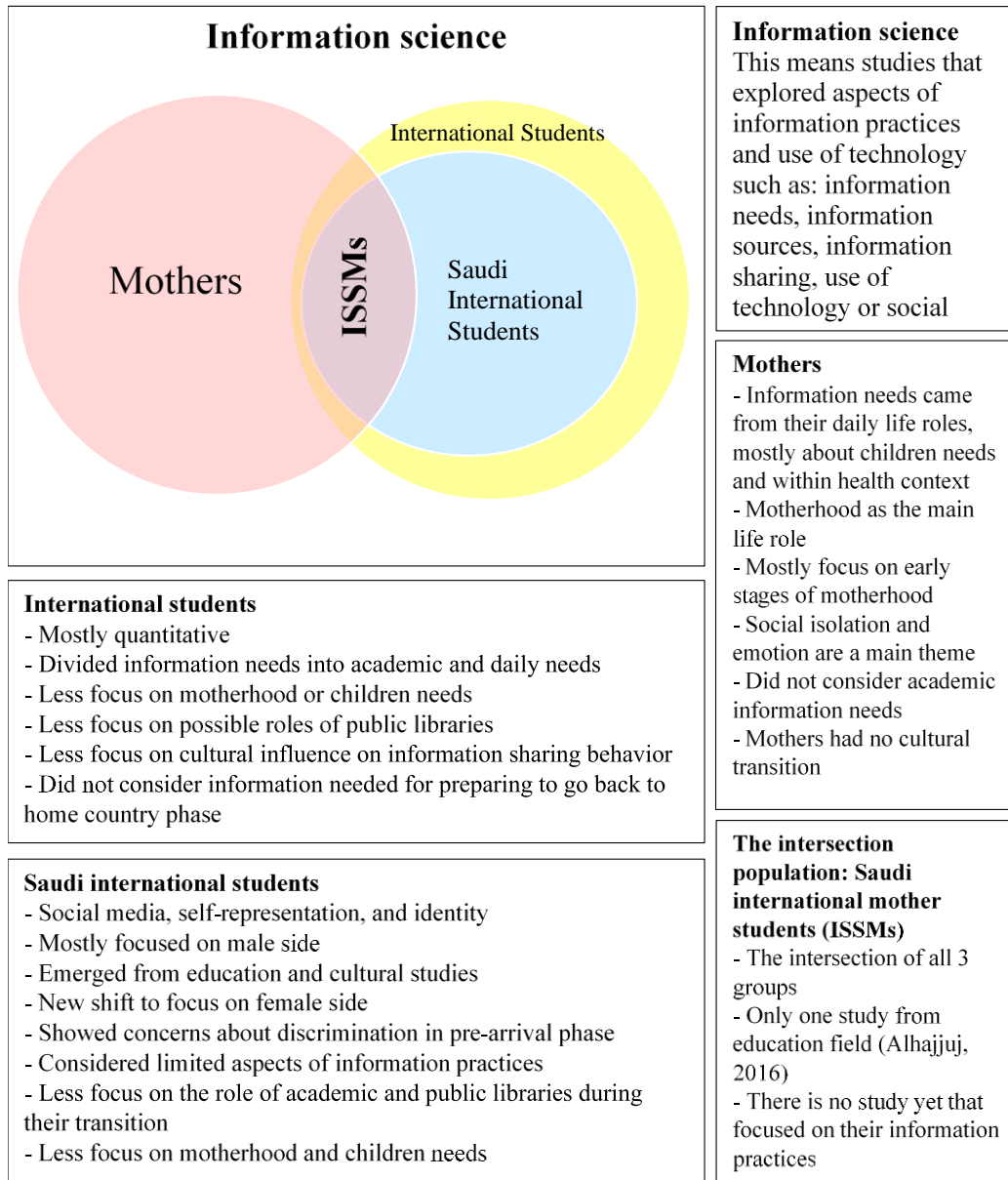
The previous sections represented an overview of aspects related to Saudi Arabia and how it is different compared to the USA and other Western countries. These vast cultural differences can influence information practices and daily needs of Saudi international students in general but ISSMs in particular. The differences in cultural expectations for women and the dual needs of studies and family responsibilities while transitioning to a new culture create an especially complex situation for ISSMs. This research focuses not only on the experiences and challenges that ISSMs face because their story has already been documented by another researcher in the education field (Alhajjuj, 2016), but instead focuses on the information practices of ISSMs in their daily life while in the USA and their expected information practices as they plan for their return to Saudi Arabia. The cultural insight presented in this chapter about the norms of the conservative closed society where ISSMs originate, provides an opportunity for a shared understanding of the successes and challenges that the ISSMs describe in their own words in following chapters. The next chapter will present the related work in the field of information science related to mothers, international students, Saudi international students, and Saudi international female and mother students.

Chapter 3 Related work

3.1 Introduction

As the group of interest in this study, international student Saudi mothers (ISSMs), is the intersection of mothers, international students and Saudis, a review of related work in the field of information science for each group is given (see Figure 3). The terms information science and library, and information science (LIS) is used interchangeably throughout the document. By information science I am referring to studies that investigated research questions that included information behavior/practices, role of information, lived experiences, and uses of technology by similar population. Studies reviewed here explored information needs, information use, information sources, and information sharing behavior within social groups either on online spaces such as social media or in physical places such as schools or libraries. I begin with a review of studies related to information practices of mothers, followed by international students and information, and later Saudi international students and information sections. The final section will summarize and discuss gaps of the reviewed studies in relation to the research questions of this research.

Figure 3 Shows ISSMs as the intersection of three groups, the main findings and gaps within each group as discussed in previous information science studies



3.2 Mothers and information

Being a mother imposes a whole new world of needs. The better we understand these needs, the better we can provide information that can help satisfy these needs. These needs motivated a number of scholars in the field of information science and similar fields such as HCI (Human Computer Interaction) to explore the information world of mothers and the ways technology in general and social media in particular can help (e.g. Britton et al., 2019; Fisher & Landry, 2007; Gibson & Hanson, 2013; McKenzie, 2003; Morris, 2014).

3.2.1 Information needs

In the field of information science, Fisher and Landry (2007) were among the first to study the information behavior of mothers. In their study, they explored daily information needs in the daily life of stay-at-home mothers. Mothers' information needs are created by their daily roles and tasks such as being a housekeeper, a cook, and a teacher. Later Loudon et al. (2016) explored first time mothers' daily life information behavior. Among first-time mothers, information needs mostly focused on issues related to healthcare, sleeping, feeding, and weaning. Additional examples of information needs were related to healthcare context as reported by mothers in Lee's (2015) study such as vaccinations, child dental health, and nutrition. In sum, these studies show that mothers' information needs were diverse, mostly related to their children's needs, and came from their daily life roles. Although mothers are women with other life roles in addition to motherhood roles, these studies did not incorporate the other role such as academic or professional information needs for student mothers or working mothers.

3.2.2 Information sources

To fulfil their diverse information needs, mothers used many information sources such as books, the Internet, friends, and family (Fisher & Landry, 2007). Nevertheless, mothers-to-mothers remain the most appreciated source of information as reported by many studies (Davis, 2015; Fisher & Landry, 2007; Loudon et al., 2016). The findings resulting from these studies were mostly related to mothers in their home countries. While the result from these studies might still be relevant to mothers even in a different cultural context, it is not yet known what type of information sources mothers in a different cultural context prefer, what groups they interact with, through which medium they will interact, or if they have different information sources. These variety of information sources is explored as part of this research investigation.

In addition to information sources, Fisher and Landry (2007) explored the notion of information ground of mothers as a medium for exchanging information. Information ground as described in their study, refers to places or temporary environments where people meet for purposes other than information (e.g. playgrounds) and also share information on that ground. Mothers choose their information ground based on certain aspects of people, information, and place. The information grounds mothers reported includes children's schools, playgrounds, community centers and stores. However, in the study by Fisher and Landry (2007) all these information grounds were previously known to the mothers and places that they were already familiar with. Mothers from different countries may have different information grounds as they may not be familiar with all these places. Further, as mothers in the study by Fisher and Landry (2007) preferred the aspect of having people (other mothers) in their information ground to exchange information, which implies the role of social connections required to make that information ground efficient. Mothers from different cultures, such as ISSMs, may take longer to

build those social connections, maybe viewed as an outsider by other local mothers, or form their own information grounds with mothers from similar cultural groups. To date no study has explored ISSMs' information sources and information ground; we do not know what information sources ISSMs prefer and how they form their information grounds.

3.2.3 Stages of motherhood

Fisher and Landry (2007) also noted that mothers of young children tended to be more socially isolated and to have limited information ground due to the consuming needs of their young children. That could be as the information ground discussed in their study were limited to physical spaces (e.g. schools, playgrounds). Moving the information ground from a physical space to online space, Davis (2015) explored the information experience and engagement of new mothers on social media as a way to reduce the social isolation. Davis described new mothers' information experience in social media as contextualized, and formed by many aspects such as emotional, psychological, cultural, motherhood experiences, and a sense of belonging to the sisterhood (2015). Similar to the previous information studies on mothers, the information experience of mothers discussed in Davis' study, were the experience of new mothers who are in their home country.

3.2.4 Role of technology

Along the same lines of research on mothers and online communities, Gibson and Hanson (2013) explored possible roles of technology in the life of new mothers. Technologies explored in their study were social media, web services, the internet, smartphones, blogs and forums. Information received and shared through these technologies helped new mothers gain more confidence in their mothering abilities and helped them maintain identities beyond being a mother. Although Gibson and Hanson (2013) discussed aspects of mothers' identity, they did not consider

other types of identity such as identity changes during the transition between cultures. Morris (2014) explored sharing behavior on social media by mothers of young children before and after birth. Mothers after birth shared less content compared to before birth, and most of the content they shared contained a combination of text and children's pictures. Overall, the author found that social media provided a medium for sharing children pictures, seeking parenting advice and obtaining social support. As with all of the aforementioned studies, Morris (2014) and others mainly considered mothers in their home country.

3.2.5 Emotions

Emotions, information, and mothers have been discussed as main themes in the previous studies that focused on mothers and their information behavior/practices. Fisher and Landry (2007), studied the role of affect in the information behavior for stay at home mothers. In their study, affect coexists with mothers' information seeking activities either in positive or negative way. Examples for positive affect include feeling of being empowered by information to make decisions, while example of negative affect such as mothers feeling frustrated when they do not find desired information. In addition to the coexistence of emotion during information seeking activities, in some cases emotion had more impact on mothers' information behavior as it prevented them from asking questions about sensitive topics and seeking advice out of fear of being judged by others for their parenting style as reported in Loudon et al. (2016). Other incidents where emotion impacted mothers' information behavior are in the case of conflicts of information. Loudon et al. (2016), and Montesi and Álvarez Bornstein (2017) noted that conflict impacted the information behavior of mothers. In Loudon et al. (2016), incidents of information conflict happened when mothers received conflicting information from healthcare providers, which abstained mothers from asking further questions to healthcare providers. While in Montesi and

Álvarez Bornstein's (2017) when mothers received conflicting information from their community, mothers became to seek more information online as they did not agree with the information they received. This could be as mothers in Montesi and Álvarez Bornstein (2017) study adopted a different parenting style from the usual parenting style within their communities. Thus, they did not agree with many of the information they received from their communities including their families and healthcare professionals. Similarly, ISSMs may have different parenting styles from the culture they reside in and they could be receiving information which they disagree with because of cultural differences. Although, Montesi and Álvarez Bornstein (2017) provided some insight into information behavior of mothers with different parenting style, their findings are more specific to mothers in their home countries. Accordingly, this raises interesting questions about how different parenting style may impact the way mothers interact with information and whether emotion such as culture shock and stress have any role on mothers' information practices during cultural transition.

3.2.6 Challenges

As discussed in the previous studies, emotion can be an informational motivation or a barrier for mothers. Though, emotion is not the only barrier mothers could face, there are other types of barriers and challenges. These challenges could be personal or informational challenges. Personal challenges could be as the social isolation that mothers experienced especially in the early stages of motherhood. Thus, it is not surprising to find many of the previous studies mainly focused on new mothers or mothers of young children (Davis 2015; Gibson & Hanson 2013; Loudon et al. 2016; Morris 2014). The social support mothers can receive during this period is crucial either in physical space as in the mothers weekly meeting (Loudon et al., 2016), or online as on social media spaces (Davis, 2015; Gibson & Hanson, 2013; Morris, 2014). Other types of challenges could be

informational challenges such as having unmet information or feeling overwhelmed by the amount of information received (Loudon et al., 2016). This adds to the important role of information in the life of mothers and the way it should be delivered to them.

Previous studies noted that receiving information helped mothers feel more confident (Gibson & Hanson, 2013), in fulfilling their daily roles as stay at home mothers (Fisher & Landry, 2007), maintaining their identities apart from being a mother (Gibson & Hanson, 2013), maintaining their parenting identities and providing confirmation in instances of conflicting information (Montesi & Álvarez Bornstein, 2017). Still, the role of information and challenges emerged from the lived experience of mothers with different characteristics such as first-time mothers, mothers of young children, stay at home mothers, and mothers with different parenting style. Although, these findings can also be true for other population of mothers, these studies did not consider mothers in different cultural context such as international student-mothers. In the case of mothers transiting to another culture, stage of motherhood might not be the main factor to consider, as it is still challenging to navigate a new information landscape even for mothers who are not first-time mothers or have older children. For example, transitioning mothers still need to find daycares or schools to their children, help their children to learn a different language, adjust to the new culture, find information sources they can rely on. Further, previous studies mostly focused on the role of motherhood as the main life role, other roles that mothers may have as working mothers or student had less attention. These different life roles will create different information needs. For example, being a mother and a student in a new country will add to the challenges of balancing the two roles of being a mother and a successful student while navigating and adjusting to a new country. This in turn will impose a new information needs and challenges despite their current stage of motherhood.

Regardless of the existence studies related to information practices and mothers, to the best of my knowledge, there is no study that considered the information practices of mothers who are also international students. Thus, this research aims to fill this gap by exploring the information practices of specific group of mothers, who are also students, in a different cultural context: ISSMs in the USA. The next section will review related information science to international students' population.

3.3 International students and information

As transition to motherhood imposes many information needs in women life, transition from one's home country to a new country, create a whole world of information needs. In recognition of the international students' cultural transition, needs, experiences, and challenges, many scholars across a wide range of fields have explored the topic of international students. Of the interest to this research, studies from LIS field will be further discussed in the following.

3.3.1 Libraries

In the field of information science, previous studies focused on the use of libraries and their services in the life of international students. They mainly focused on academic libraries and academic information needs as noted in Oh et al. (2014), and Yoon and Chung (2017). Less attention was given toward the role of academic libraries outside academic needs or other possible roles of public libraries in the life of international students. Public libraries were mostly explored with populations other than international students such as immigrant groups as noted in Caidi et al. (2010). Public libraries can provide a place where immigrants exchange formal and informal information (Fisher, Durrance & Hinton, 2004), or a place to maintain cultural heritage as described in the study of Japanese mothers in Canada teaching children their native home language (Nomura & Caidi, 2013). In that sense, public libraries can also serve as an important information

venue and environment for international students in general but mothers in particular. Yet, benefiting from such services provided by libraries depends on the awareness and perceptions international students have. It was reported that although international students are aware of the existence of academic libraries for example, their perception of the usefulness of the academic libraries and the services they provide is different compared to academic libraries in their home countries (Mehra & Bilal, 2007b). As academic libraries in some international students' home countries lacking resources and technical support when compared to academic libraries in the host country. Similarly, the concept and existence of public libraries might not be the same across different countries, which means that international students may not be aware of public libraries existence, services or uses. Thus, part of this research explores the awareness and role of both academic and public libraries in the life of ISSMs.

3.3.2 Information needs

In addition to the use of academic libraries by international students, many studies explored the information needs of international students. Most of the previous studies focused on information needs for academic purposes such as information related to course work and study programs (Alzougool et al., 2013). This interest shifted recently to include daily information needs such as finding information related to housing, transportation, and groceries (Oh & Buttler, 2016). Previous exploration of daily information needs was within the context immigrants (Caidi et al., 2010), then it gradually started to emerge in studies related to international students (e.g. Alzougool et al., 2013; Sin, 2015; Sin & Kim, 2013). Although these studies explored daily information needs of international students, they did not focus much on motherhood or the needs of children. Further, most of these studies did not consider information shifts through time phases in the life of international students.

3.3.3 Stages of transition

Information shifts during settlement have been explored in relation to immigrants and refugees (Allard, 2015; Caidi et al., 2010; Kennan et al., 2011). Although these studies varied in the number of settlement phases, they included information changes during the whole journey. It covered a range from before leaving a home country up to finally settling in the host country. The time framework and settlement stages have been applied to the context of international students recently by Oh and Butler (2016), Shanker et al. (2016), and Yoon and Chung (2017). These studies explored different settlement stages in the life of international students such as pre-arrival, settlement, and current stages reported in Yoon and Chung (2017), or during the first year and second year of international students' life in Oh and Buttler (2016). However, these studies did not include the time period of preparing to go back to a home country, as international students in contrast to immigrants, are expected to return to their home countries upon finishing their degree. Understanding information practices during the preparation to return to a home country is an important part of the time framework in the life of international students. This time phase is considered in this research with regard to its relation to ISSMs as well.

3.3.4 Information sources and role of technology

Other aspects discussed in the field of information science related to international students is the value of social media networks (e.g. Facebook, Twitter). Saw et al. (2013) explored preferred social media platforms by certain ethnic groups of international students. He argued that communicating information through preferred social media channels could be more efficient to students. Further, Sin and Kim (2013) and Hamid et al. (2016) explored the information value of social media in the life of international students. Sin and Kim (2013) found that the frequent use of social media networks for daily information needs indicate that information found on these

social media networks was useful and satisfy international students daily needs. Hamid et al. (2016), reported that international students used social media as an information source, for social interaction, and as an educational advocacy (e.g. seek academic information, connect institution for learning). Although both studies provided insights of social media as an important information source in the life of international students, it focused less on aspects related to sharing behavior and self-representation on social media based on cultural beliefs. Information sharing on social media is considered a sensitive topic for Saudi females as will be introduced under the coming section of Saudi international female students.

In addition to social media value in the life of international students, other types of information sources were explored by the previous studies. Examples of information sources used by international students are search engines, family, friends, printed sources, as well as traditional media such as TV, and radio (Sin, 2015; Sin et al., 2011). As it can be shown, international students use diverse information sources. Previous studies have showcased the different types of information sources however, we cannot assume the effectiveness of certain information sources among all international students' groups. Their usefulness depends on many factors, such as the type of needs and the device being used as noted in Chung and Yoon (2015). Thus, there is a need to explore different international students' groups and their information needs as that will influence their information sources.

3.3.5 Barriers, challenges and emotions

Despite the different information sources international students reported in previous studies, they still face information barriers and challenges. Among these challenges are finding relevant information, difficulties in accessing information, poor website usability/design, lack of search skills, and language barriers (Alzougool et al., 2013; Haung & Bilal, 2017; Mehra & Bilal,

2007a; Sin et al., 2011). This is compounded by the mixed types of emotional and personal challenges they face due to the cultural transition such as culture shock and social isolation. Mehra (2007) noted that doctoral international students experienced a mix of positive and negative emotions during their information seeking. Therefore, he argued that by understanding the emotional experience of international students during their academic studies, help can be provided to them to overcome negative emotions. All these challenges can add to the challenges that international student-mothers already face. Nonetheless, these studies did not focus on challenges faced by international students who are also mothers and its relation to their information practices.

This section reviewed studies in the field of LIS that discussed information changes over time, information needs, information sources, use of libraries, the value of social media networks, emotion, and challenges international students encounter during their journey. Despite the many studies conducted in relation to international students and their information practices, there are some gaps that exist in these studies. Many of these studies were quantitative, which means it lacks the deep understanding of a lived experience of the international students sampled. Further, it had less focus on the needs of motherhood, did not consider cultural differences between Western cultures and Middle Eastern cultures, and did not consider the factor of temporary residency in the host country and how it may impact the information practices of international students. This research aims to fill these gaps by further exploring the information practices in the life of ISSMs in the USA during their studies. The next section will discuss studies related to Saudi international students and aspects of their information or technology uses.

3.4 Saudi international students

As I noted earlier, ISSMs as a population is at the intersection of mothers, international students, and Saudis. During my search for studies related to the information behavior/practices or

the technology uses within the context of the Saudi population, I focused on Saudis overseas because living overseas is a different experience than living in ones' home country. Studies I found of Saudis overseas were mainly about Saudi international students. While there might be Saudis who live overseas other than students, such as Saudi immigrants, I did not find studies of their information practices in the literature.

As is the case for many other international students, Saudi international students face many cultural and adjustment challenges during their transition to host countries. This motivated many scholars across many fields (see Table 1) to investigate Saudi international students' experience, adjustment, perception, and challenges while they are overseas (e.g. Alamri, 2017; Hall, 2013; Heyn, 2013; Midgley, 2009; Unruh & Obeidat, 2015). In general, many of the studies which considered the experience of Saudi international students had less focus on female students as noted in (Alhajjuj, 2016). This could be because of cultural issues (females prefer to interact with females more than interacting with males in Saudi culture) as many studies conducted by male researchers, or due to the difficulty to reach female participants who are sometimes described as a "hard to reach population" in previous studies as noted by Binsahl et al. (2015b, p. 2). This observation started to change as more studies started to include both male and female participants (e.g. Alsuhaibani et al., 2020) or inclusively focus on females' experience and cultural adjustment (e.g. Ahmed, 2016; Binsahl et al., 2015b; Winter, 2015) (see Table 1). This could be explained because of the increased presence of Saudi female students abroad because of the wide initiative of the governmental scholarship program. In addition, many of the recent studies related to females have been conducted by female investigators which has made it easier to reach female participants because of cultural preferences as described in chapter 2.

Table 1 Shows studies related to Saudi international students presented in this section

Study	Population	Focus
Hall (2013)	Saudi male students in the USA	Experiences and expectations
Heyn (2013)	Saudi male students in the USA	Experiences and challenges
Midgley (2009)	Saudi male students in the Australia	Experiences and adjustment
Unruh and Obeidat (2015)	Saudi male students in the USA	Adjusting to Learning in the USA
Alamri (2017)	Saudi undergraduate male students in Canada	Everyday experiences and adjustment
Alsuhaibani et al. (2020)	Male and female Saudi students in the UK	Cultural transition and social media involved
Albalawi (2013)	Saudi female students in the USA	Academic and cultural challenges
Lefdahl-Davis and Perrone-McGovern (2015)	Saudi female students in the USA	Cultural Adjustment
Winters (2015)	Saudi female students in the USA	Experience and academic persistence
Ahmed (2016)	Saudi female students in Canada	Cultural experience and challenges
Alshehab (2017)	Saudi female students in Australia	Daily practices on social media
Alruwaili (2017)	Saudi female students in the USA	Experience and identity representation on social media
Binsahl et al. (2015a)	Saudi female students in Australia	Use of social media and online identity
Binsahl et al. (2015b)	Saudi female students in Australia	Information seeking behavior, information needs and sources
Alhajjuj (2016)	Saudi mother students in the USA	Experience, challenges and strategies

3.4.1 Saudi international female students

Among the studies that focused on Saudi female students' overseas experiences and adjustment are Albalawi (2013), Lefdahl-Davis and Perrone-McGovern (2015), Winters (2015), and Ahmed (2016). These studies emerged from the fields of education and cultural studies and they focused less on the use of technologies and aspects of information practices during this cultural transition.

An exception to this observation of including some aspects of technology uses within educational and cultural studies are the studies by Alshehab (2017) and Alruwaili (2017). Alshehab (2017) explored daily practices of Saudi female international students on social media platforms. Participants in her study described their digital identity on social media platforms and their real-life identities as the same. They used their real names and shared non-fake information about themselves. Further, they communicated in a formal way within social media groups or platforms that have both male and female genders while tending to be more humorous in female-only groups or platforms. Similarly, Alruwaili (2017) explored Saudi female international students and their digital identity representation on social media. Participants reported that they became more open and comfortable in using social media platforms compared to their uses when they were in Saudi Arabia. While in Saudi Arabia, participants used nicknames as social media account names, but they switched to use their real names in the USA. Though, they still did not share any personal pictures of themselves or accept friendship requests from Saudi males because of cultural tradition (Alruwaili, 2017).

The findings from Alshehab (2017) and Alruwaili (2017) studies showed that culture still impacted the way Saudi females use social media despite their residency in a different cultural context. While both studies provided insights into sharing behavior and uses of social media in a

similar population to this research, it focused less on information needs or different sources of information other than social media. Further, although it briefly discussed changes related to identities, it did not consider other identity changes related to parenting practice and whether it changed or remained the same and how it reflected in their information practices or uses of social media.

All previous studies discussed up to this point related to Saudi international students were from the fields of education and cultural studies, and they were included as they provided some insights into the lived experience and technology uses of Saudi international students. Related to the field of information science, a few studies focused on aspects related to information practices and technology uses of Saudi international female students (Binsahl et al., 2015a; Binsahl et al., 2015b).

Binsahl and colleagues (2015a; 2015b), investigated aspects of information behavior and social media uses of Saudi female students in Australia during transition. The authors reported changes in the information seeking behavior of the participants in the pre and post arrival to Australia. In the pre-arrival phase, participants mostly searched for information related to a host country's culture and possible discrimination. Which means that Saudi females in particular had some concerns about living in Australia before they arrived. They were in fear of being discriminated as they are easily recognized based on their Islamic clothing code. Later once they arrived in Australia, their information needs shifted to information about university administration and other services.

For their information sources, in the pre-arrival phase participants mostly relied on their families, friends, and home country's online sources but not Australian websites (due to a lack of English proficiency). The lack of considering Australian websites remained in effect even in the

after-arrival phase. That is, they still had limited language skills and a lack of awareness of available services provided by Australian institutions to international students (2015a). This shows that while there are many available services for international students, they do not always take full advantage of them due to language barriers and unfamiliarity with the new cultural context. Regarding social media use, participants utilized social media for socialization and as an information source. They represented their identity in a similar way as discussed in Alshehab (2017) and Alruwaili (2017) using their real names but avoided sharing their personal photos due to cultural issues.

In both Binsahl et al. (2015a) and Binsahl et al. (2015b) studies, aspects of information behavior of Saudi females residing in Australia were described, and although Australia is considered part of Western and developed countries, there might be unique aspects related to each country such as the information landscape and educational systems. We require more studies that consider different context other than the Australian context. Further, although Binsahl et al. (2015b) considered information changes during transition, it did not consider the phase of preparing to go back to Saudi Arabia. Lastly, although it discussed many information needs related to females, it did not consider information needs of motherhood and children or uses of available services, such as uses of public libraries in the host country.

3.4.2 Saudi international mother students

Concerning Saudi mother students, the only study I found based on my review of the literature is a recent study by Alhajjaj (2016) from outside the field of information science. In her study, the author explored the lived experience of Saudi mother students in the USA, the challenges they face, and their adjustment strategies. Challenges discussed in her study are such as academic difficulties, lack of institutional support, and feel of guilt by mothers concerning their families.

Strategies mothers developed include seeking help from friends and family, planning ahead of time, and limiting their social activities.

Although Alhajj's (2016) work provides insights to the lived experience of a similar group to this research, it contributes more to the field of education and does not include aspects related to information practices or technology uses. Building on previous studies, I want to extend our knowledge by exploring the information practices in the life of ISSMs in the USA during their studies. Information can help mitigate the challenges ISSMs face, and therefore studying ISSMs' information practices and the ways information can support them is crucial. The next section will summarize what I learned so far from previous studies and give more emphasis on less considered gaps.

3.5 Mothers, international students, and Saudis within information science in relation to the current study population

Reviewing the literature shows that among the three groups reviewed: mothers, international students, and Saudi international students' information behavior/practices, emotion, challenges and role of social media varied. In the context of information studies related to mothers, it has been noted that mothers appreciated other mothers as an important information source. In spite of the context of mothers who are from different countries we need to know what group of mothers they may prefer and through which medium they exchange information. Oh and Butler (2016, 2018) identified co-national social networks as crucial for international students. Co-national social networks are networks made up of international students from the same country/cultural background in the same host country sharing information useful to support transition. Co-national mother groups can be useful sources of information for ISSMs.

Previous studies found that mothers' information needs were mostly related to their daily needs, and specifically their children's needs and within the realm of health context. In contrast to international students, previous studies categorized their information needs to academic needs and daily information needs. While the shift to consider daily information needs is recent within international students' context, it has been explored within the context of immigrants in earlier studies. Caidi et al. (2010) reviewed information practice for immigrants during settlement stages. Educational related information, for example, showed up as non-immediate information needs in the context of newly arrived immigrants. That is as immigrants in early stages of arriving to the host country searched for information related to daily life such as housing, language, and employment. The educational information showed up later in the context of longer established immigrants. This might be also true for international students as noted by Oh and Buttler (2016), because international students in their study searched for survival information first (e.g. housing and transportation information) then moved to other types of information. However, international students need to switch faster to academic information needs as it is part of their daily life as students in the host country.

Sin et al. (2011) reported that international students found daily information needs were more challenging to find compared to academic needs. This finding contrasts with Binsahl et al. (2015b), as they found that academic information needs were more challenging to find. Further, Binsahl et al. (2015b) also found that Saudi female international students searched for information related to discrimination before they arrive at the host country. This information need was not reported in the other studies reviewed here concerning international students' information needs. Moreover, while information related to career and finance were among the main daily information needs international students searched in Sin and Kim (2013) and Sin et al. (2011), it was not

reported as a main daily information needs for Saudi female international students in Binsahl et al. (2015). That is as Saudi females in their study were supported by the government scholarship program. As the authors did not focus on international mother students, this finding might be different for mothers' context. In Alhajj (2016), mothers reported financial difficulties as one of the challenges they encountered, despite their scholarship support as the childcare expenses exceeded the financial aid they received through their scholarships.

This different view of certain information need shows that although these studies explored international students, it reported different results based on each population. Thus, we still need to investigate other international students' population with different characteristics to understand their information practices. Therefore, this research aims to explore the information practices of ISSMs during their academic journey through two study phases: first online survey and then semi-structured interviews. The next chapter will provide more details about the research methodology.

Chapter 4 Methodology

This chapter provides an overview of the research design and the data collection methods conducted in this research.

4.1 Research design overview

This research adopted a qualitative method to answer the research questions investigated in this dissertation. The research questions are as follows: 1) what are the experiences and challenges facing international student Saudi mothers (ISSMs) during their studies abroad in the USA, 2) what are information practices of ISSMs while studying abroad in the USA, and 3) how do the information practices of ISSMs change over time during their studies abroad?

According to Merriam (2009), “the overall purposes of qualitative research are to achieve an understanding of how people make sense out of their lives, delineate the process (rather than the outcome or product) of meaning-making, and describe how people interpret what they experience” (p. 14). Further, in the field of information science, which is the main field for this research, it was noted that “qualitative research is increasingly being legitimated” as the focus shifted more toward users rather than systems (Allard, 2015, p. 50). This research’s focus was related to the daily experiences of a certain group, thus, using a qualitative research method was appropriate because it provided a deep understanding of ISSMs’ experiences and their information practices during their studies in the USA.

The data was collected through two phases/studies, first an online survey, and second semi-structured interviews. In the online survey, the first two research questions were answered; while in the second study, all three research questions were answered. Both the survey and interview

questions were available in Arabic and English- The following sections present details about participation criteria, sampling techniques, recruitment, data collection, data analysis and validity.

4.2 Participation criteria

The participation criteria for both studies were that participants should be: 1) 18 years old or older, 2) a Saudi international student in the USA, 3) a mother of at least one child who reside with her in the USA, and 4) a user of social media platforms. For the purpose of this research it was important that the participants had their children residing with them in the USA because living with their children impacts their motherhood experiences and their information practices in the USA. Accordingly, participation in both the online survey and the interviews was limited to the ISSMs who had at least one of their children residing with them in the USA.

4.3 Sampling techniques

The sampling techniques I used to recruit participants for both studies were purposeful and snowball techniques (Merriam, 2009). Purposeful sampling involves selecting cases where the most information related to the research questions can be learned (Merriam, 2009). As my research focuses on a certain group of users, purposeful sampling was the appropriate technique to use because recruitment should be more focused toward individuals who satisfy the criteria of this research. The snowball technique involve asking the early participants if they know protentional participants who would like to participate in the study (Merriam, 2009). Abokhodair (2017) recommended to use the snowball technique based on her experience working with a similar population (Saudi students overseas) to this research' s population. Accordingly, and given the collectivistic nature of the Saudi culture as discussed in chapter 2, the snowball technique was appropriate for recruiting ISSM participants. Applying the snowball technique was helpful because

early ISSM participants connected me with future participants and helped me circulate the participation flyer within their social connections.

4.4 Recruitment

Recruitment was done through word of mouth, personal connections, and online space. Online space included email communication and posting on social media. Social media platforms included WhatsApp, Facebook, and Twitter accounts/groups related to Saudi international students in the USA. The recruitment's post had a brief description of the study, participation criteria, and the researcher's email.

4.5 Data collection phases

The data was collected through two phases. This research required collecting data from human subjects, I applied to obtain an approval from the Institutional Review Board (IRB) at UMBC. After I received the IRB's approval (IRB # Y19AK12145) (see Appendix A), I started data collection. In both study phases, before collecting the data, the instruments (survey and interview questions) were tested in small pilot studies (3 responses for the survey and 2 interviews). The data from the pilot studies were not included in the dataset for this research, rather they were used to improve the instruments.

Both studies' instruments (the questions in the survey and the interviews) were available in English and Arabic. Back translation technique was used to ensure translation reliability for the instruments (Merriam, 2009). According to Merriam (2009) back translation involves having another person other than the main researcher who speaks both languages to translate some of my English translations back to Arabic. I made the instruments available in Arabic because Arabic is the native language of myself and ISSMs. I thought it would build more trust between me and the

participants. Further, it also helped me reached diverse ISSMs participants beyond those participants might have had limited English proficiency.

4.5.1 First phase: an online survey

I collected data in the first phase through an online survey. The online survey provided early insights into ISSMs' experiences and information practices while providing more context for the interviews in the second study phase. The online survey helped reach a wider range of ISSM participants in different locations in the USA. Further, I believed some of the questions in the questionnaire might have been too sensitive to discuss in a face-to-face setting. The questions such as asking the participants if they were planning on going back to Saudi Arabia after finishing their studies, acknowledging of the idea of withdrawing from school, or facing the challenges of being a mother were some of the sensitive questions included on the survey. The online survey was anonymous, so it provided more freedom for the ISSM participants to express their thoughts without the burden of face to face meetings.

4.5.1.1 Building the survey

I used Qualtrics (an online software survey building tool) to build the survey online. Qualtrics allows the participant to take the survey either via a computer or smartphone. The questions in the survey included close-ended and open-ended questions. The questions were grouped into four categories: information practices, social media uses, motherhood experiences, and demographic information (see Appendix D). While all the questions in the survey were important, the first set of questions were related to information practices, followed by social media uses, then motherhood experiences, and lastly the demographic part. This order because I was concerned about participants choosing not to complete the entire survey. The demographic part

was the last section on the survey because I wanted to build more trust between me and the survey participants by delaying asking them about the demographic information later in the survey.

In total, there were forty questions in the survey. The first question was the participation consent. The next screen after the consent statement contained two criteria questions. The criteria questions ensured that the survey's participants were from the intended population for this research. The first question asked *Are you 18 years old or older, Saudi mother of at least one child, currently studying in the USA, and use social media networks?* The second question asked *Do you have any of your children living with you in the USA?* If a participant answered both criteria questions as yes, then the participant was allowed to proceed to the rest of the survey questions. If the participant answered no to any of the two criteria questions, the survey was terminated, and the participant was thanked.

4.5.1.2 Sample size and responses

Alhajj (2016) noted in her work that the number of Saudi female students in the USA in Fall 2015 was 17,994 students. However, it is not clear how many of these females were mothers. Because the number of the target population is unknown, the sample size of the survey had to be determined either according to theoretical saturation measures, meaning when no more new themes emerge (Merriam, 2009), or by having minimum of 30 responses as advised by Sue and Ritter (2007) and cited in Lazar et al. (2010) when conducting survey research.

The survey opened for participation from August 10th to the 30th, 2019. Initially, I received ninety-one responses in total. However, after checking the responses to ensure their validity in terms of the criteria questions, the number of total responses was pruned to sixty-eight responses. As not all the questions in the survey were mandatory to answer, each question received a different

number of responses. In total, forty-two respondents answered the entire survey. More details about the respondents are presented in chapter 5.

When the survey was open, I continually checked the responses and the respondents' characteristics. The respondents, at that point in time, varied in terms of age, academic degree, number of children, funding sources, and their length of stay in the USA. I closed the survey for participation as the number of the respondents were more than 30 respondents and as the respondents had diverse characteristics which I believed was representative for the ISSMs population.

4.5.1.3 Raffle drawings

After completing the entire survey, the participants were asked if they wanted to participate in raffle drawings as a small thank you for their time. The raffle drawings were for three \$10 Starbucks gift cards (sponsored by the Graduate Student Association at UMBC). If a participant chose to participate in the raffle, the participant was automatically transferred to a second survey's link to enter her email for contact purposes in case she won. Overall, the raffle's survey received twenty-seven responses, and three gift cards were awarded to three randomly selected raffle respondents. I designed the two surveys (the main study's survey and the raffle's survey) to be separate from each other to maintain the participants' anonymity. Because the survey and the raffle were separate surveys the answers from one survey could not be linked back to the other. Both the main study survey and raffle's surveys were available to answer in English or Arabic.

4.5.1.4 Data analysis

Data from the online survey was analyzed similarly to Abokhodaire's (2017) "qualitatively and descriptively" (p. 76). The survey had a mix of closed-ended and open-ended questions. I analyzed the closed-ended questions through using descriptive statistics (Lazar et al., 2010). For

the open-ended questions, I used thematic analysis method (Corbin & Strauss, 2008) to analyze the written answers. Data analysis started as soon as responses received. I used SPSS (a statistical analysis software) to help with the survey's data analysis. The survey provided access to a wide range of the ISSM participants and provided the initial insights into the research questions investigated in this research. Still, a second study was needed to provide a more in-depth understanding of the first two research questions and answer the third research question. Consequently, I conducted semi-structured qualitative study using face to face interviews. The following section presents more details in this regard.

4.5.2 Second phase: Semi-Structured Interviews

Semi-structured interviews enable participants to interact with the interviewee and ask clarification questions if the initial questions were not clear. Further, the process enables the interviewee to ask the questions from an interview guide and, at the same time, flexibly introduce probes or follow-up discussions with the participants (Merriam, 2009). While focus groups could be another method to consider in the second phase of this research, I decided on semi-structured interviews. I made this decision because my research included questions about motherhood experiences. I believed that one-on-one semi-structured interviews would make ISSMs feel more comfortable sharing their experiences without feelings of being judged by other members in a focus group setting. Therefore, I decided on conducting the second study using one-on-one semi-structured interviews.

4.5.2.1 Interview guide

During the interviews, participants were asked about their experiences and information practices during their academic journey. The interview questions followed the TMM framework by Allard (2015), and Allard and Caidi (2018). The questions addressed different time points in

the ISSMs' academic journeys. These times were: before coming to the USA, early arrival to the USA, after initial arrival to the USA, and preparing to go back to Saudi Arabia (see Appendix B). Questions related to the participants' demographic information were available separately in an online questionnaire. The link to the online questionnaire and the consent form were sent to the participants before the interview. The demographic questions were similar to the demographic questions on the survey because the participants in the survey and the interviews were not the same ISSM participants.

4.5.2.2 Interviews sessions

Before the interview started, I ensured that the participant read and signed the consent form. I briefly introduced myself and explained the goal of my research. Further, I allowed each participant the time to ask any question about the consent form or the research in general. I assured the participants about their privacy and the confidentiality of the data they shared with me. I listened to them without interruption and tried to be neutral/ non-judgmental to whatever they shared with me.

The participants were given the option to choose the interview's time, place, and language. Physical places included libraries or university's labs, while online options included Skype or Google Hangout. Eleven interviews were conducted with ISSM participants between November 2019 and February 2020. Ten ISSM participants chose to be interviewed in Arabic and online through Skype. Only one ISSM participant chose to be interviewed in English and in a physical place (a university lab) based on her personal preferences. The interviews were one-on-one and lasted between 90 minutes and 120 minutes. During the interviews, I took notes, and the interviews were voice recorded for transcription purposes after receiving the participant's permission. After

each interview, the participant was thanked and given a \$10 Starbucks gift card (sponsored by the Graduate Student Association at UMBC) for their time and input.

4.5.2.3 Sample size

Overall, there were eleven ISSM participants in the interview study. The number of participants for the interview study was determined based on theoretical saturation which means no new themes emerged from the data (Merriam, 2009). I stopped interviewing new participants beyond the eleven participants I had, as at that time no new themes were emerging from the interview data.

4.5.2.4 Data analysis

The analysis for the interviews started immediately after each interview to check emerging themes. I took notes during each interview, and I wrote a memo after each interview. The interview guide included questions for the different phases of ISSMs' academic journey and the steps of the TMM framework (Allard, 2015; Allard & Caidi, 2018). These questions allowed for mapping these findings to the TMM framework, while still allowing for new themes to emerge from the interviews, similar to the analysis method undertaken in Caidi et al. (2019).

The process for analyzing the data was an iterative process of thematic coding which involved, organizing, reading, rereading, and making sense of the data. The constant comparative method by Glaser and Strauss (1967) was used to guide the analysis process which meant comparing emerging themes during data analysis to the already identified themes. I started the analysis by taking a small set of the data (one interview script), and then writing notations or brief explanations next to units of the data. This step is called open coding (Merriam, 2009). After coding all the units of the data, I developed an axial coding or categories. Axial coding means to group or find relationships between open codes (Glaser and Strauss, 2008) which resulted in a list

of categories and subcategories. Then I moved to the other interview transcriptions and repeated the same processes: reading the data, coding the data, grouping the codes into categories, and then generating a list of categories or themes. This list was merged and compared with the categories list generated from the analysis of the small set of data. I sorted the categories and generated a tentative scheme of categories. The scheme was updated through the analysis of the rest of the data set until saturation was reached meaning no new categories emerged (Merriam, 2009). Later, I selected themes based on their relation to the research questions.

As ten out of eleven ISSM participants were interviewed in Arabic, I needed a software which supported both languages. I used MAXQDA (a software for qualitative data analysis which supports many languages including Arabic) to help with data analysis from the interviews. The interviews were voice recorded with the participant's permission. Later I transcribed the interviews, and the transcriptions were included in the MAXQDA software. I coded the transcriptions in English. Quotes from the interviews were presented in chapters 6,7, and 8. All the quotes were translated from Arabic to English, except for the quotes which came from the one participant who was interviewed in English. Back translation technique was used to ensure translation reliability (Merriam, 2009). Another colleague (a PhD female student who speaks Arabic and English) helped with validating the translations for the quotes, and with some of the data coding and interpretations. This technique is called peer review, and it provided another means of ensuring the validity of my data analysis (Merriam, 2009).

4.6 Validity and reliability

In addition to the steps taken in each study (pilot studies, back translation, peer review) to ensure data validity, I relied on triangulations to ensure the validity of this research. Triangulations refers to the use of multiple data collection methods, investigators, or data sources to confirm the

resulted findings (Merriam, 2009). In this study, triangulation was done through two different data collection methods (online survey and semi-structured interviews), and two different participants (data sources) in each study phase.

4.6.1 Researcher positionality

I discussed my personal experience in chapter 1 as an inspiration to conduct this research. In this section, I want to acknowledge my positionality and possible assumptions to ensure research validity. I am a PhD student in the USA, a female, a mother, a Muslim, and from Saudi Arabia. I see myself as an insider to the Saudi culture as it is my home culture, but I also understand many American cultural aspects since I have been in the USA for a while. I believe that being female myself helped me access the participants and made them feel open sharing their experiences with me. My experience may have many commonalities with the participants' experiences, but I did not enforce my own experience on them. I ensured my accurate understanding of the discussion I and the participants had during interviews. For example, when some of the ISSM participants used the term "you know" to refer to a common experience or a cultural tradition. I always followed up with them to confirm exactly what they meant even if I knew what they were referring to. These follow up clarifications were mandatory to ensure my correct understanding and avoid personal bias.

As I am an insider to the Saudi culture myself, and as the interviews were non-anonymous, I understood that some topics might be sensitive for some of the participants to share with me. These topics include talking about their husbands, their academic success, their parenting preferences, and their plan to return to Saudi Arabia afterward. For example, related to their husbands, there were no specific questions in the interview guide that asked ISSMs about their relationships with their husbands or the way that their husbands did or did not support them during

their studies. Given the nature of the gender segregated culture in Saudi Arabia, and as I am a female myself, it is not appropriate for me to ask another woman about her husband.

Another sensitive topic was not returning to Saudi Arabia after graduation. During the interviews, the ISSM participants discussed their return to Saudi Arabia as their only available option. As the expectation for ISSMs to go back to Saudi Arabia the possibility of not going back to Saudi Arabia was not discussed. Even if they wanted to stay in the USA, they would not share this decision with me because they may feel ashamed or judged by me as I am a Saudi myself. However, evidence from the interviews showed that most of the ISSMs searched for information regarding their return to Saudi Arabia (e.g. housing, jobs). In contrast, they did not show any interest in finding information about jobs in the USA or immigration process to the USA (see chapter 8).

4.7 Summary

This chapter discussed the methods used to answer the research questions in this dissertation. This research consisted of two studies: an online survey and semi-structured interviews. Details related to each phase were presented under each study phase. The next chapter will represent the findings from the first study phase, the online survey.

Chapter 5 The First Study Phase: The Online Survey

5.1 Introduction

This chapter reports on the findings from the first phase of this dissertation research: the online survey. The online survey aimed to provide an exploratory overview of international student Saudi mothers' (ISSMs) information practices situated in their daily life. Mainly the survey is focused toward answering the first two research questions 1) what are the experiences and challenges facing ISSMs during their study abroad in the USA? and 2) what are ISSMs' information practices while studying abroad in the USA? including their information needs, information sources, and sharing behavior. The findings are presented in the following order: 1) survey responses, 2) characteristics of respondents, 3) the daily experience of ISSMs in the USA, and 4) information practices of ISSMs while in the USA.

5.2 Survey responses

Overall, the survey received ninety-one responses. The first two questions were criteria questions. The first question asked if the respondent is at least 18 years old, Saudi mother of at least one child, currently studying in the USA, and use social media networks. The second question asked if the respondent have any of their children residing with them in the USA. After reviewing the responses to check if the respondents satisfied the two criteria questions, the total number of valid responses was pruned to sixty-eight responses. Out of the sixty-eight responses, forty-two ISSM participants completed the whole survey. Each question in the survey received a different number of responses as not all the questions were mandatory to answer.

5.3 Characteristics of respondents

In the survey, the ISSM participants were asked about their age, marital status, length of stay in the USA, study major, degree level, English proficiency level, funding sources, and employment. The demographics received were diverse and representative of the study's population. Table 2 shows a summary of the characteristics of the ISSM participants.

The largest group (40%) of the respondents were between the ages of twenty-six and thirty years old. Out of the 45 ISSM participants who answered the marital status question, 44 ISSM participants were married at the time of filling out the survey. Most of the ISSM participants (88.1%) had their husbands residing with them in the USA, while 4.8% of the ISSM participants had their brothers residing with them in the USA, and 9.5% had no one to accompany them in the USA. Having a male relative (usually a husband, a brother or a father) residing with his female relative while studying overseas is important but it is not mandatory, which could explain the finding of having 9.5% of the respondents with no male relative accompanying them in the USA.

The ISSM participants varied in their length of stay in the USA. Most of ISSM participants (33.3%) have been in the USA for two to five years. Related to English proficiency, 55.6% of the ISSM participants reported their English level as intermediate, while 42.2% reported their level as advanced. Further, fifty percent of the ISSM participants were pursuing their master's degree, while the remaining of the ISSM participants were working toward their PhD degree (28.6%), bachelor's degree (14.3%), or other certificates (7.1%) (see Table 2).

Related to funding and scholarships, the majority of Saudi students attend schools abroad through scholarships. The scholarships are either provided through a Saudi Arabian employer (such as universities) or through the Saudi government scholarship program. Thus, some Saudi

students already have jobs in Saudi Arabia, while other Saudi students have no job yet in Saudi Arabia. In the survey, the respondents had different sources of funding. An equal percentage of the ISSM participants are funded by Saudi government scholarship program (40.5%) or Saudi universities scholarship program (40.5%). While few respondents (9.5%) indicated that they are self-funded. In regard of employment, 41% of the ISSM participants are employed in a Saudi Arabian entity, while 56 % have no current employment in Saudi Arabia (see Table 2).

Table 2 Demographic Characteristics of a Sample of international student Saudi mothers in the USA

Characteristics of the respondents		Percent
Age (Years) (N= 45)	18-25	13.3%
	26-30	40.0
	31-35	33.3
	36-40	11.1
	41 or above	2.2
English level (N=45)	Beginner	2.2%
	Intermediate	55.6
	Advanced	42.2
Marital status (N=45)	Married	97.8%
	Not married	2.2
Accompanying family members in the USA* (N=42)	Husband	88.1%
	Brother	4.8
	None	9.5
Degree (N=42)	Bachelors	14.3%
	Masters	50
	PhD	28.6
	Others: Professional Development teacher program, certificate	7.1

Characteristics of the respondents		Percent
Major of study (N=35)	Humanities and Social Sciences	51.4%
	Engineering and Information Technology	34.3
	Natural and Mathematical Sciences	11.4
	Medical Sciences	2.9
Scholarship and funding source* (N=42)	Saudi government scholarships program	40.5%
	Saudi universities scholarships program	40.5%
	Self-funded	9.5%
	Scholarship programs in the USA	4.8%
	Others: scholar's dependent, professional Development teacher program	7.1%
Employment* (N=41)	Employed in a Saudi Arabian entity/organization	41.4%
	Employed in the USA	2.4
	Not employed	56
Length of stay in the USA (N=42)	1 year or less	28%
	2-5 years	33.3
	6-9 Years	30.9
	10 years or more	7.1

* Does not total to 100 because an individual can check more than 1 answer.

5.4 The daily experience of being a student and a mother while the USA

To address the first research question, ISSM participants were asked about their daily experiences and the challenges they face on a regular basis while they are in the USA. I begin by presenting the findings related to ISSMs' daily experiences.

5.4.1 Being an international student and a mother is difficult

In the survey, the ISSM participants were asked *During your studies, to what extent did you find it challenging to balance/manage being a student and a mother at the same time in a*

foreign country? Whereas a small percentage (4.3%) of the respondents did not find it challenging to balance both being a mother and a student, a substantial majority found it challenging. Of the 47 ISSM participants who answered the question, 42.6% found it “extremely challenging” compared to 31.9% who found it “very challenging”, and 21.3% found it “somewhat challenging”.

When asked in an open-ended question to explain further, many of reasons mentioned were time limitation compared to the amount of responsibilities they have, financial challenges, lack of social support, and mental health issues such as stress, loneliness, and depression. Several ISSM participants shared their thoughts and frustrations with regards to balancing the two roles while temporarily living abroad as a mother and a student. For example, one respondent wrote the following regard balancing the two roles:

It was very challenging for me for these reasons: it is as living as a half mother half student while you are more than you could do to keep things well. Cannot have enough time for kids to play with them and enjoy their childhood stage. Cannot have enough time to be a good wife. Cannot have a good time for yourself as always busy fulfilling other requirements rather than having time for yourself. Being lonely-- with no chances to socialize a lot. Being under continuous pressure affected my health badly. Having a husband who could not fit and feel comfortable in this foreign environment caused some difficulties too.

Based on the information in the previous written answer, this mother worried about both her studies and her children. Her concerns involved ensuring that her family could fit and adjust to the cultural context of living and thriving in the USA. While the emotional pressure affected this respondent’s health in general, for another respondent, role overload had a more serious impact on her emotional wellbeing. For instance, in her anonymously written answer she expressed: *“I faced a problem which is not related to my child, but I felt lonely and depressed to the point of suicide, I needed love and my mother hug”* [my translation to English]

It is not clear what the problem was that led this respondent to consider suicide, whether she overcame that problem or not, and what type of sources she may have used or not to help her

through that difficult time in her life. Still this short-written answer emphasizes the important role of social network support and family. Similarly, another participant shared: *“I don’t have the support of family and friends to help me with my children. Also, my children don’t have cousins or family to connect with in the US. We both end up lacking the family support and connections”*

In addition to the previous challenges presented by the respondents, the financial burden of childcare was a major concern for several respondents, as shown in the following written responses:

Children need somebody look after them so, that make it more challenging while I am studying and being busy. That make it worst since my mother or sister are not here to lend me a hand to hold them for me. That could be very hard to concentrate with kid's interruptions. Also, we need to spend some more time at the University it seems to be impossible to leave the kids alone, so we rely on the babysitter to look after them and that also kind of stress on our financial.

5.4.2 Dropping out of school

To explore how the challenges the ISSM participants face would impact their academic success, they were asked if they ever considered dropping out of school and not finishing the degree they are working on. More than half (51.1%) of the ISSM participants (n=45) considered dropping out of the degree they are working toward. When asked to specify reasons for considering dropping out, the respondents checked more than one answer. Nonetheless, difficulty managing motherhood and school requirements topped the list at 78.3%, followed by financial issues (47.8%), lack of childcare help (39.2%), and the difficulty of the degree requirements (34.8%) (see Table 3).

Table 3 Dropping from school reasons

Responses to the question *please select what were the most likely reasons that would have led you to feel like dropping out of school select all apply question (N= 23)*

Choices	Percent
Hard to manage motherhood and school requirements	78.3%
Financial issues	47.8
Lack of childcare help	39.2
Difficulty of the degree requirements	34.8
Languages difficulties	30.4
Lack of emotional support	30.4
Family pressure	26.1
Others: Being alone with the child	4.3

* Does not total to 100 because an individual can check more than 1 answer

5.4.3 Asking for help

The ISSM participants were asked in two separate questions about the sources of help they would use if they encounter a problem first related to their academic life and second related to their everyday life. With respect to their academic life, the majority (71.1%, n=45) of the ISSM participants indicated that they would go to their academic advisors followed by their classmates in the USA (46.7%), and friends (35.6%) (see Table 4).

When referencing their sources of support for everyday, most of the ISSM participants (n=45) indicated that they would go to their friends (60%) and family (46.7%). Still, a considerable group of the ISSM participants (26.7%) indicated that they would not go anywhere to ask for help related to daily life problems (see Table 5). Without further follow up it remains unclear as to why the ISSM participants would be reluctant to seek help for daily life problems.

Table 4 Sources for help related to academic life

Responses to the question *where would you go to ask for help if you encounter a problem related to your academic life select all apply question (N=45)*

Choices	Percent
Academic advisor in the USA	71.1%
Classmates in the USA	46.7
Friends	35.6
Family	22.2
Social media networks	13.3
I would not go anywhere	13.3
Others: Google search, husbands	8.9

* Does not total to 100 because an individual can check more than 1 answer

Table 5 Sources for help related to daily life

Responses to the question *where would you go to ask for help if you encounter a problem related to your everyday life select all apply question (N=45)*

Choices	Percent
Friends	60%
Family	46.7
I would not go anywhere	26.7
Social media networks	17.8
Classmates in the USA	15.6
Academic advisor in the USA	8.9
Others: Google, God (Allah), babysitter, neighbor or someone I know who can help	11.1

* Does not total to 100 because an individual can check more than 1 answer

5.4.4 Being in the USA is temporary

In addition to asking the ISSM participants about their thoughts of abandoning the degree, they were also asked about the likelihood of going back to Saudi Arabia after finishing the degree they were working on. The majority (85.6%, n=42) of the ISSM participants indicated that they are likely (very likely 71.4%, and somewhat likely 14.2%) to go back to Saudi Arabia after they finish their studies. While 7.1% of the ISSM participants indicated that they are not likely to go back, and 7.1% chose not to answer this question. For those respondents who chose *not likely to go back* or *chose prefer not to answer*, when I looked to their written answers in the following question *Please tell us why you choose this option in the previous question*, some of the respondents indicated that they wanted to apply to another degree, or that they were not ready to go back yet. Accordingly, I believe that some of the respondents may misunderstood the question as they thought the question was asking about their short-term goal and not their long-term plan.

Reasons for making these decisions varied among the ISSM participants. For the respondents who chose the option of not likely to go back, they shared couple of reasons such as continuing with a higher degree, searching for training chances in the USA, or waiting for their children to finish their studies.

Similarly, the ones who indicated their intention to go back to Saudi Arabia after they finish, they shared their reasons for making this decision. Among these reasons are living in one's home country, job obligations in Saudi Arabia, and get united with the rest of the family and friends were among the common reasons noted. For instance, one of the respondents wrote:

I plan to go back home for my family, work and friends. I don't plan to stay in U.S. I find it hard to stay away from everything I care about and my obligations. I want my baby to be raised knowing our religion, culture, language and heritage. Additionally, looking at my background, discrimination and racism make it hard to feel accepted fully or welcomed in U.S.

As this written answer indicates, family, friends, and maintaining cultural values when raising children are all important values for ISSMs. Other ISSM participants expressed their desire to transfer their knowledge to benefit their home country as stated by this respondent: *“Because as a Saudi woman we need to transform everything we’ve learned to improve our country in all aspects. This is the first reason we came for.”*

In addition to transferring the educational experience, other ISSM participants wanted to go back to jobs they left in Saudi Arabia as remarked by this respondent: *“Because I have job there [Saudi Arabia] and I came here [the USA] to study not to stay”*

These written answers indicate that the ISSM participants perceive their stay in the USA as temporary and that their journey will be completed by returning to Saudi Arabia. The next section will present the findings related to the second research question which is the information practices of ISSMs.

5.5 Information practices of ISSMs while in the USA

Recall that by information practices I am referring to how individuals seek, find, and share information in a social context (Savolainen, 2008). The ISSM participants were asked about their information practices during two time periods: the early days of arrival to the USA and after the early days of arrivals to USA. The following sections organized the findings based on these two time periods.

5.5.1 Information needs in the early days of arrival to the USA

The ISSM participants were asked Back when you first planned to come to the USA or in your early days of being in the USA, what was the most important information that you searched for? Information related to housing (85.3%), residential area safety (67.6%), daycare (57.4%), and

academic universities/colleges (55.9%) were among the main information needs the ISSM participants sought in their early days of arrivals to the USA (see Table 6).

Table 6 Information needs in early arrival to the USA

Responses to *information needs in early days of arrival to the USA, select all apply question (N=68)*

Choices	Percent
Housing	85.3%
Residential area safety	67.6
Daycare	57.4
Academic universities/colleges	55.9
English language centers/institution	47.1
Children schools	42.6
Transportation	38.2
Cultural stores	33.8
Others: banks, cost and expenses, cities information, grocery stores, medical insurance and coverage	8.8

** Does not total to 100 because individual can check more than 1 answer*

5.5.2 Information sources while in the USA

The ISSM participants were asked about the sources they used to find information related to academic and daily information needs. Related to their academic information needs they were asked *Which of the following information sources do you use to find information related to your academic information needs such as finding a university, writing a research paper, finding articles, or applying to graduate school?* Similarly, related to daily information needs the ISSM participants were asked *Which of the following information sources do you use to find information related to your everyday information needs such as finding cultural food, childcare, or housing?* In the following the results will be presented related to each question.

5.5.2.1 Sources for academic information needs

The top sources selected by the ISSM participants to find information related to academic needs were search engines (73.1%) followed by personal connections (such as family and classmates) in the USA (50.8%), university/college websites in the USA (44.4%), and Saudi Arabian Culture Mission (SACM) in the USA (42.9%) (see Table 7).

Further, the ISSM participants were asked in an open-ended question *What are the top 3 information sources that you trust the most for academic information needs, and why?* The results show that, the most trusted sources were official universities websites, Google scholar, Saudi Arabian Cultural Mission (SACM), friends and classmates, search engines such as Google and Bing, and academic library databases.

Despite the many sources of information identified by the ISSM participants, still more than half of the respondents (56.5%, n= 62) reported that they encountered challenges when they search for academic information. Twenty-seven ISSM participants shared that the most challenging topics to find were information about academic admission, acceptance and academic majors. For instance, one respondent wrote:

[It is difficult to find] Information related to my major ‘Software Engineering’, [such as] the nature of the courses, how easy or difficult it is, how to get academic acceptance, and getting information from previous students in this major because of the lack of students, especially women in this major. [my translation to English]

Another respondent wrote that another challenge identified was accessing reliable academic materials in Arabic:

Sometimes I know a certain information that supports my research and I know I had read it previously in Arabic. But as research requires reliable sources, I cannot add that information until I do a long search to find its English sources. And sometimes I get bored from the long search, so I omit that information although I know it supports my research. [my translation to English]

Both written answers showed examples of the challenges which the ISSM participants faced when they searched for academic information either related to academic majors or materials.

Table 7 Information sources for academic needs

Responses to information sources for academic needs select all apply question (N=63)

Choices	Percent
Search engines (such as Google and Bing)	73.1%
Personal connections in the USA (such as friends and classmates)	50.8
University/ college websites in the USA	44.4
Saudi Arabian Culture Mission (SACM) in the USA	42.9
Google scholar	34.9
Personal connections in Saudi Arabia (such as family and friends)	26.9
Social media networks (such as Facebook and Twitter)	26.9
School officials in the USA (such as international officers and professors)	23.8
Academic library resources in the USA	19.1
Academic library databases in the USA	19.1
Academic library staff in the USA	12.7
Children's schools, daycares or teachers in the USA	11.1
Public library staff in the USA	3.2
PubMed	3.2
Cultural tradition media (such as Saudi newspapers, and Televisions)	3.2
Others: Greatschools.org, Saudi groups and Saudi clubs	3.2
Local American tradition media (such as newspapers, Televisions, and Radio)	0

* Does not total to 100 because individual can check more than 1 answer

5.5.2.2 Sources for everyday information needs

As with searching for academic information the ISSM participants were also asked to select the sources which they used to find everyday information. Like academic information sources, search engines (83.1% %) and personal connections in the USA (71.7%) top the list of sources for everyday information. In contrast to academic information sources, social media platforms (43.4%) was the third highest other source used for everyday information (see Table 8). Similar to the academic sources, the ISSM participants were asked *What are the top 3 information sources that you trust the most for everyday information needs, and why?* Respondents most trusted sources were search engines, social media platforms, friends, and Google maps.

Contrary to academic information challenges, the majority (73.0%, n= 52) of the respondents did not find it difficult to find information related to everyday life. Still, some of ISSM participants (n=13) found it difficult, they indicated that daycare, cultural food, restaurants, housing, and maintaining cultural traditions were the most difficult topics to find information about. As one mother wrote: “Finding information about summer centers or camps for my children was difficult because I wanted to make sure that they fit with our customs and traditions” [my translation to English]. Another participant added:

Searching for cultural food, in google map, for example, there is no calibration for the restaurant to make it easy to find all Arabian restaurants, searching for Halal Food, there is no way on the internet to know all places that serve Halal food, you usually need to discover [explore the places yourself] to know about it.

Both written answers show the difficulty did not come from not being able to retrieve results, rather, it came as the information they wanted does not exist on the Web in the desired format with the desired metadata.

Table 8 Information sources for everyday needs

Responses to information sources for everyday needs select all apply question (N=53)

Choices	Percent
Search engines (such as Google and Bing)	83.1%
Personal connections in the USA (such as friends and classmates)	71.7
Social media networks (such as Facebook and Twitter)	43.4
Personal connections in Saudi Arabia (such as family and friends)	24.5
Children's schools, daycares or teachers in the USA	18.9
School officials in the USA (such as international officers and professors)	9.4
Saudi Arabian Culture Mission (SACM) in the USA	7.5
University/ college websites in the USA	7.5
Google scholar	7.5
Local American tradition media (such as newspapers, Televisions, and Radio)	5.7
Academic library staff in the USA	5.7
Academic library resources in the USA	3.8
PubMed	1.9
Academic library databases in the USA	0
Public library staff in the USA	0
Cultural tradition media (such as Saudi newspapers, and Televisions)	0
Others: Google maps, online reviews, official state website, international office in the school, Yelp, Instagram, Facebook, exploring and wondering in the city, cultural groups as they nominate the better housing options	11.3

** Does not total to 100 because individual can check more than 1 answer*

5.5.3 Information sharing on social media platforms while in the USA

Information sharing is a main aspect of information practices (Savolainen, 2008). In the survey, the ISSM participants were asked *Please check all social media platforms you use (reading/browsing posts by others or generating/sharing content yourself)*. The most popular

social media platforms used by the ISSM participants were WhatsApp (76.6%), Snapchat (68.1%), and Instagram (48.9%). It worth noting that despite Facebook's popularity, it came as the least popular platform used by the ISSM participants (12.8%) (See Table 9).

The ISSM participants were asked *If you share any content on social media, write in the text box the type of content you share, and why (e.g. sharing personal pictures, nature pictures, videos, audio files, or asking questions.) If you do not share any content on social media platforms, please leave the text box blank.* The responses were aggregated and the common use among each social media platform are presented in Table 8. Mainly, the ISSM participants used WhatsApp to stay connected to family and friends, while they mostly used Snapchat to share pictures and videos, and they used Instagram to share pictures (See Table 10).

Table 9 Responses to social media platforms usage

Select all apply question (N=47)

Social media platforms	Percentage of responders who checked this option
WhatsApp	76.6%
Snapchat	68.1
Instagram	48.9
YouTube	44.7
Twitter	42.6
LinkedIn	23.4
Telegram	14.9
Do not share any content on social media (None)	14.9
Facebook	12.8
Other social media platforms	0

* Does not total to 100 because individual can check more than 1 answer

Table 10 The top uses of each social media platform

Based on the open-ended question *If you share any content on social media, write in the text box the type of content you share, and why (e.g. sharing personal pictures, nature pictures, videos, audio files, or asking questions.) If you do not share any content on social media platforms, please leave the text box blank.*

Platforms	Uses
WhatsApp	Stay connected to family and friends, and share pictures and videos
Snapchat	Share pictures and videos
Instagram	Share pictures
YouTube	Use learning and education videos
Twitter	Post personal tweets and check news
LinkedIn	Search for jobs
Telegram	Get academic information
Facebook	Asking questions

5.5.4 Awareness and uses of available resources while in the USA

To explore ISSMs' level of familiarity with the American information context and resources, they were asked about their uses of academic and public libraries in the USA. First, the ISSM participants were asked about academic libraries then about public libraries.

5.5.4.1 Academic libraries

Assuming that the ISSM participants are familiar with the libraries associated with their academic institutions, they were not asked about if they knew about the concept of the academic library. Rather, they were asked about the services they used their institutions' libraries for. Most of the ISSM participants (n= 49) used their institution's library to find references (67.3%) and as a place to study (65.3%). In addition, the ISSMs made use of the available resources offered by academic library such as the writing services (40.8%), using the library as a place to meet friends

or classmates (36.7%), and library personnel (28.6%). Still few ISSM participants (12.2%) indicated that they did not use their institution's library (see Table 11).

Table 11 Responses to uses of academic library

select all apply question (N=49)

Choices	Percent
Find references	67.3%
A place to study	65.3%
Use the writing center	40.8%
A place to meet friends or classmates	36.7%
Ask library staff for help	28.6%
I do not use my institution's library	12.2%

* Does not total to 100 because an individual can check more than 1 answer

5.5.4.2 Public libraries

After the ISSM participants were asked about academic libraries, they were asked if they have visited a public library in the USA. The majority of the ISSM participants (69.3%, n= 49) indicated that they have been to a public library. The respondents wrote that they had learned about public libraries from their friends, children's schools, Google, and/or having a public library close to home.

Most of the ISSM participants (77.6%, n=49) were aware of the services provided by public libraries for children, and more than half of them (55.1%, n=49) have attended public libraries events with their children. Besides attending events, the ISSM participants also used public libraries for other purposes. The majority of the ISSM participants used it as a place for their children to play (59.2%, n=49) and as a place to do academic work (53.1%). Followed by finding references (28.6%), a place to meet friends or classmates (24.5%) and asking library's staff for

help (22.4%). Still, some ISSM participants (20.4%) indicated that they did not use public libraries (see Table 12).

For those who have visited public libraries, the majority (94%, n=34) described their experiences as a positive experience for themselves and their children. For instance, a mother wrote:

I love the public library community. It makes me feel connected to the place I live in. They make me feel like I am welcome, that I am home. They have resources in Arabic so that I can teach my children Arabic and they provide any type of document that I request.

As this written answer shows, the participant felt welcome and sense of belonging to the community while in the library. This emphasizes the important role of libraries in the life of international student mothers.

Another mother wrote about the fun she and her children had when they visited a public library: “great experience, I usually go to have a place for me to work and relax. sometimes to socialize as well. My kids go there to borrow books, play, attend events, participate in reading challenges”. Satisfied with the positive experience she had in public library; another participant expressed that her perception of libraries has changed as she shared:

It was an eye-opening experience as it is a place for the family where everyone can have a good time. It changed my idea of a library. As a mother, it is a place where I can be a mother and a student at the same time.

Another participant added: “It is amazing [experience], and I hope that we have the same in Saudi Arabia” Those quotes show the positive experiences the ISSM participants had related to public libraries in the USA. The following section will present the discussion of the findings.

Table 12 Responses to uses of public libraries

select all apply question (N=49)

Choices	Percent
A place where my children play	59.2%
A place to do my academic work	53.1%
Find references	28.6%
A place to meet friends or classmates	24.5%
Ask library staff for help	22.4%
I did not use my public library	20.4%
Others: borrowing books and movies, relaxing and socialization	8.2%

* Does not total to 100 because an individual can check more than 1 answer

5.6 Discussion RQ1: What are the experiences and challenges facing ISSMs during their study abroad in the USA?

5.6.1 Balancing the two roles and daily challenges

The challenges documented earlier in this study are like the challenges reported in previous studies on mothers and international students. For instance, in their UK study of new mothers, Loudon et al. (2016) documented “lack of time” as one of the many challenges new mothers had.

Similarly, the feelings of guilt of not spending enough time with the family that ISSMs reported and, the burden of high financial cost of daycare were confirmed in the Alhajjaj’s (2016) study of Saudi mothers. In her study, she noted that even though Saudi mothers had full scholarships, the funding they received was not enough to cover the high cost of daycare needed for their children. While these findings are not new, we are left to wonder about the emotional cost of ISSMs trying to resolve these challenges while facing a lack of social support.

ISSMs emphasized the important role of family and friends support and identified lack of social support as one of the many challenges reported in the survey. Previous studies emphasized the critical role of social support for international students and mothers. Social support received online or offline helped mothers overcome social isolation, especially mothers in their early stages of motherhood (Loudon et al. 2016, Gibson & Hanson, 2013, Morris, 2014). Like mothers in the early stages of motherhood, stress, anxiety, and social isolation represent common challenges among international students' population. However, the extreme sense of social isolation described in this survey by one respondent is surprising. Documenting extreme feelings of loneliness and depression to the point of considering suicide was particularly troubling or disconcerting, especially in a Saudi population. In Lefdahl-Davis and Perrone-McGovern's (2015) work, they found that the topic of mental health is still a stigmatized topic in Saudi Arabian culture.

Having this one respondent share these thoughts through the survey input could indicate not only an urgent cry for help but also represents a gap in the literature on Saudis. Because the survey was anonymous, it was not clear if this was a temporary condition, if this respondent still had those feelings while filling out the survey, if she sought help to overcome them, or if she was aware of available sources for help. This finding is relatively new related to international Saudi student population, still it should be taken into consideration. That the topic has not been previously documented does not mean that the phenomenon is not common or non-existent. It could be a common feeling among many other Saudi students-mothers, who might not be willing to share these feelings in an interview study such as Alhajjuj (2016). The value of the online anonymous survey helped to unearth a stigmatizing topic is beyond this dissertation but worthy of further investigation.

5.6.2 Being successful in the academic journey

Difficulties in managing both roles of motherhood and academic life was indicated as the common challenge among most of the respondents. On the one hand, Ahmed (2016) noted that Saudi females were determined to be successful in their studies despite the challenges they encountered. Though Ahmed's (2016) study did not specifically focus on the challenges of motherhood in combination with academic life. On the other hand, focusing on a similar sample of Saudi mothers living in the USA, Alhajjuj (2016) concluded that Saudi mothers were able to manage both roles successfully.

While both studies, Ahmed (2016) and Alhajjuj (2016), provide a positive view of how Saudi females or mothers cope with the challenges associated with motherhood and academic life, they both did not consider the possibility of an international student dropping out. Perhaps have they asked the participants in their samples directly about dropping out, their results might have been different. In the survey, when ISSMs were asked directly if they had considered dropping out, more than half of the respondents (n=45) considered dropping out from the degree they were working toward. Whereas both Alhajjuj (2016) and Ahmed (2016) findings were based on interviews with Saudi females, this study was conducted via an anonymous online survey. It is possible that ISSMs were more open to express their lack of confidence via an anonymous survey than an interview. This variance on findings related to the same topic emphasizes using anonymous surveys particularly for sensitive topics such as academic success for ISSMs in this context.

5.6.3 Seeking help from others

In the survey, the majority of the ISSM participants (69.6%) sought help for academic matters from their academic advisors. This finding is aligned with Alhajjuj's (2016) finding as many doctoral mothers in her study believed they had the support of their academic advisors.

For daily challenges, most of the ISSM participants indicated that they would reach to their friends and family. Still, about a quarter of the respondents (26.1%) indicated that they do not go anywhere to seek help related to daily challenges. This issue of self-reliance in the face of a challenge is supported by what Lefdahl-Davis and Perrone-McGovern (2015) found related to help seeking behavior among international Saudi females. The documented seeking help as an issue of last resort, in that female Saudi students in their study were hesitant to seek help unless it is related to a very serious or medical matters as the topic of seeking help is still among the stigmatized matters in Saudi culture (Lefdahl-Davis & Perrone-McGovern, 2015).

5.6.4 Going back home after they finish their studies

That a majority (85.2%) of the respondents expressed the intention of going back to Saudi Arabia after they finish their studies was not surprising. Previous studies by Binsahl et al. (2015b) and Hall (2013) confirmed this finding. Unlike other international students who traveled abroad to study (e.g. Worrall et al., 2019), the results show that the majority of Saudi international students intend to return to Saudi Arabia and have no intentions on immigrating and living in the host countries after their education is completed. This finding implies that their residence in the host country is temporary and that their life experience and information practices might be impacted by this temporary condition.

5.7 Discussion: RQ2: What are information practices of ISSM while studying abroad in the USA?

5.7.1 ISSMs' information needs in the early days of arrivals

The most important information needs which ISSMs searched in their early days or arrival to the USA were related to everyday day information needs (housing, area safety and daycare) and later came the information about academic institutions. This finding confirms earlier findings on

the information needs of international students reported by Oh et al. (2014). In the Oh et al., (2014) work, international students prioritized searching for essential/ survival information such as housing and grocery stores. However, information related to daycare was not among the categories reported. A possible explanation could be that their sample did not mainly focus on international students who are parents or mothers. Still, daycare was mentioned as a concern for many international Saudi student mothers in Alhajjaj's (2016) work. However, as her research mainly focused on the experiences of Saudi doctoral mothers, daycare was not explicitly described as an information need.

After searching for everyday information ISSMs would still search for information about academic institutions even after their arrival to USA. This finding can be explained as usually Saudi students start their educational journey in the USA by first studying in English language centers/institutes to meet the language requirements by academic programs for international students. Then they seek admission acceptance to continue their studies either in undergraduate or graduate programs as have been noted also in other studies related to the population of Saudi international students such as Ahmed (2016) and Lefdahl-Davis and Perrone-McGovern's (2015).

5.7.2 Information sources after the early days of arrivals to the current time

Similar to Binsahl et al. (2015b), ISSMs most often use search engines and personal connections to search for academic and everyday information needs. Further, ISSMs used social media as a source for everyday and academic information. Sin and Kim (2013) reported that international students used social media network as an information source for everyday information needs. This similar to the finding from this survey, as ISSMs, used social media platforms for everyday information needs, and further they used them as a source for academic

information needs as well. This suggest the important value of social media for ISSMs for both every day and academic information needs.

Searching for information related to academic needs such as academic admission and acceptance, was considered more challenging than searching about information related to everyday information needs. This finding is contradictory to the finding reported by Sin et al. (2011), but similar to the finding reported by Binsahl et al. (2015b). In Sin et al. (2011) international students in the United States found searching for information related to everyday needs more challenging than searching for academic information needs. In Binsahl et al. (2015b) Saudi international female students in Australia found searching for academic information to be more challenging than searching for information related to everyday needs. This suggest that Saudi international students may have more difficulties finding information related to academic needs compared to other international student populations. It is also that searching in Australia might be difficult than searching in the U.S.

5.7.3 Information sharing on social media platforms

Social media platforms have an important value for the population of international students mentioned in previous studies (Hamid et al., 2016; Saw et al. 2013; Sin & Kim 2013). Saw et al. (2013) reported that preferences to use certain social media platforms differ from one country to another. In the survey, the top two preferred social media platforms by ISSMs were WhatsApp and Snapchat. This finding, similar to Binsahl et al. (2015b) and Alshehab (2017), suggests that WhatsApp and Snapchat are the most preferred social media platforms among Saudi international students in general and Saudi international female/mother students in particular.

On the other hand, Facebook, was not among the top social media platforms favored by ISSMs, despite its popularity among users in the USA. It is not clear why ISSMs particularly prefer

certain platforms among other platforms from the survey. Still, as suggested by Saw et al. (2013) knowing preferred social media platforms for a certain population, might help deliver information through these channels more effectively.

Sharing pictures seems to be a common behavior among many social media platforms for ISSMs. However, it is not clear the type of pictures they shared, and whether the type of pictures is the same or different among each social media platform. Given that sharing pictures of oneself is a sensitive matter for Saudi females as they do not share their personal pictures with male strangers (Alruwaili, 2017; Binsahl et al., 2015a).

5.7.4 Academic and public libraries awareness and usage

Academic library uses and roles were discussed in previous literature related to international students (e.g. Bordanaro, 2006; Liu & Redfern, 1997; Liu & Winn, 2009). Because public libraries are not available in Saudi Arabia and given that this sample consists of international student Saudi mothers, we wanted to know about this population's level of awareness of this type of public institutions and available resources associated with them.

As ISSMs were students, it was not surprising that most of ISSMs used their institution's academic library, and only few (12.2%) indicated that they did not use their institution's library. Without follow-up questions, it is not clear what the reasons were for those few respondents who reported not using their institution's library. Whether it is lack of awareness of services provided in academic libraries or if they did not need any of the services available in academic libraries remains a mystery. Still, this finding is new in terms of the awareness for the population of Saudi international students related to academic libraries as the previous studies did not only focus on Saudi international students.

Similarly, regarding public libraries awareness, results from the survey showed that the majority of ISSMs have been to a public library in the USA. This indicates that they were aware of public libraries' existence. Further, ISSMs reported their experiences with public libraries as positive for themselves and their children. Examples mentioned by the ISSM participants regard their positive experiences in public libraries include feeling welcome, feeling as part of the community, find materials related to one's native language, being in a place where ISSMs can socialize and their children can play and have fun. This positive experience is similar to the findings from previous studies in information science field related to the role of public libraries in the life of immigrants and mothers (e.g. Audunson et al., 2011; Nomura & Caidi, 2013).

The findings of being aware and having positive experiences related to public libraries for the population of ISSMs are new. Most of the previous work related to public libraries' role in the life of newcomers were in the context of immigrants (e.g. Caidi & Allard, 2005; Fisher et al., 2004; McGowen, 2008) and did not necessary considered the population of international students in general or Saudi international student-mothers in particular. Thus, academic institutions should inform and encourage their international students and student-mothers to visit public libraries, not just for their informational value but also as a social and fun place for themselves and their children.

5.8 Summary

This chapter presented the findings from the first phase of this research: the online survey. The survey aimed to provide a broad perspective on the experience and information practices of ISSMs. Particularly, answering the first two research questions based on their temporal condition, early arrivals to the USA and after the initial arrival. The main findings from the survey showed that ISSMs' academic journey in the USA was challenging and their residency in the host country

is temporary. Related to ISSMs' information practices, they sought basic/survival information upon their early arrival, and used various information sources such as search engines, personal connections and social media networks. Further, more than half of ISSMs sampled in the survey were aware of public libraries existence and services.

While the survey provided many insights related to the research questions investigated in this dissertation, it lacked in depth details which usually result from interviews. Therefore, to have more comprehensive investigation for the first two questions and answering the third question in this dissertation during different time phases, the next chapter will present the findings from the second phase of this research: the interview study.

Chapter 6 The Interview Study: The Beginning of the Academic Journey

6.1 Introduction

The previous chapter presented the results and the discussion from the online survey. From the survey we learned that ISSMs' academic journey in the USA was challenging and their residency in the host country is temporary. Regarding their information practices, they sought basic/survival information upon their early arrival, and used various information sources such as search engines, personal connections and social media platforms. Whereas the survey provided broad insights into the life of ISSMs and briefly answered the first and second research questions presented below, results from the interview study aim to elaborate on the findings from the survey by providing an more in depth exploration of the first two research questions and providing an answer the third research question. I remind the reader of the 3 research questions investigated in this dissertation. They are:

- 4) What are the experiences and challenges facing ISSMs during their studies abroad in the USA?
- 5) What are information practices (information needs, information sources, information seeking behavior and information sharing behavior) of ISSMs while studying abroad in the USA?
- 6) How do the information practices of ISSMs change over time during their studies abroad?

This chapter and the following chapter present the findings from the interviews through the lens of the five steps of Translocal Meaning Making (TMM) framework by Allard (2015), and Allarad and Caidi (2018). This chapter focuses on the findings related to TMM framework steps 1 and 2, and the next chapter focuses on the findings related to TMM framework steps 3 through

5. Both chapters 6 and 7 initially present the reader with a brief reminder of each step of the five TMM steps. Then the results from the interviews related to each step of TMM is presented.

Based on the first two steps on the TMM framework, this chapter focuses on Imagining the host country (Step 1) and Information dissonance (Step 2). This chapter presents a qualitative look at the challenges and barrier ISSMs experienced when they retrospectively discussed how they had imagined their host country and reality that they experienced after entering the county. During the interviews, the ISSM participants had the chance to choose the language they wanted to be interviewed in. All the ISSM participants except for one (IP1) chose to be interviewed in Arabic. Accordingly, all the quotes presented in these sections are in their English translation (except for the quotes from IP1 as her interview was conducted in English).

The chapter will be organized in following manner. First, I will present the demographic profiles of the interview's ISSM participants. Next, the findings related to step 1 (imagining the USA) and step 2 (information dissonance) will be presented. Lastly, the discussion of these findings and summary of the chapter will be provided.

6.2 Participant Profiles

Eleven ISSM participants (IP1-IP11) were interviewed for this study (see Table 13). The ISSM participants' ages ranged between 18 to 40 years old. All the ISSM participants had at least one child residing with them in the USA at the time of the interview. Almost all the ISSM participants had their husbands living with them in the USA except for two ISSM participants: IP9 and IP10. Both participants acknowledged that originally their husbands came with them to the USA in the first few years, but later they had to go back to Saudi Arabia because of their job

obligations. Almost all the ISSM participants, came to the USA for the first time during their studies, except for IP7 who visited the USA one time before she came to study in it.

Source of funding/scholarships varied among the ISSM participants, six ISSM participants had their scholarships sponsored by their jobs in Saudi Arabia (IP1, IP2, IP3, IP5, IP8, IP9), while the rest of the ISSM participants (IP4, IP6, IP7, IP10, IP11) had their scholarships by the Saudi government scholarship program. For those who had their scholarships from their jobs, they were considered the *main holder of the scholarship*. While others who were sponsored by the Saudi government scholarship program, were considered *scholars' dependents*, all except for IP6 and IP10 who both were the *main holder of the scholarship* (see Table 13). To be identified as the *main holder of the scholarship* means that the student, the ISSM is the responsible party who is supposed to maintain good academic standing and report her progress to Saudi Arabia Cultural Mission (SACM), so that she does not lose the scholarship. In contrast, being a *scholar's dependent* means that the ISSM's husband is the responsible party who needs to maintain good academic standing and report his progress to SACM, so he does not lose the scholarship. The scholars' dependent receives similar benefits as *main holder of the scholarship*. However, if the *main holder of the scholarship* loses the scholarship, his/her dependent also loses the benefit as well in most cases. Besides being the main holder of the scholarship or scholars' dependents, ISSM participants had other different characteristics related to motherhood stage, number of children, length of stay in the USA, and the degree pursuits. In the following section, I provide the reader with a brief introduction to each participant.

Table 13 The Demographic Profiles of the ISSM Interview Participants

ID	Age Range	English Level	Marital Status	Number of Children	Accompanying Family in the USA	Degree	Major of Study	Scholarship Source	Employment	Length of Stay in the USA
*IP1	31-35	Advanced	Married	1	Husband, Brother	PhD	Engineering and Information Technology	Saudi universities scholarships	Employed in a Saudi Arabian entity/organization	6-9 years
*IP2	36-40	Advanced	Married	4	Husband	PhD	Engineering and Information Technology	Saudi universities scholarships	Employed in a Saudi Arabian entity/organization	2-5 years
*IP3	26-30	Advanced	Married	3	Husband	Masters	Engineering and Information Technology	Saudi universities scholarships	Employed in a Saudi Arabian entity/organization	2-5 years
IP4	26-30	Intermediate	Married	2	Husband	Masters	Humanities and Social Sciences	The Saudi government scholarship program	Not employed	2-5 Years
*IP5	31-35	Intermediate	Married	2	Husband	PhD	Engineering and Information Technology	Saudi universities scholarships	Employed in a Saudi Arabian entity/organization	6-9 Years
*IP6	36-40	Advanced	Married	2	Husband	PhD	Humanities and Social Sciences	The Saudi government scholarship program	Not employed	6-9 Years
IP7	18-25	Intermediate	Married	1	Husband	ESL	English Language Center	The Saudi government scholarship program	Not employed	2-5 years

ID	Age Range	English Level	Marital Status	Number of Children	Accompanying Family in the USA	Degree	Major of Study	Scholarship Source	Employment	Length of Stay in the USA
*IP8	31-35	Intermediate	Married	2	Husband	PhD	Natural and Mathematical Sciences	Saudi universities scholarships	Employed in a Saudi Arabian entity/organization	6-9 Years
*IP9	31-35	Advanced	Married	4	None	PhD	Engineering and Information Technology	Saudi universities scholarships	Employed in a Saudi Arabian entity/organization	6-9 Years
*IP10	31-35	Advanced	Married	4	None	Bachelors	Humanities and Social Sciences	The Saudi government scholarship program	Not employed	6-9 Years
IP11	26-30	Intermediate	Married	2	Husband	Bachelors	Medical Sciences	The Saudi government scholarship program	Not employed	6-9 Years

The (*) next to the participant ID refers to the participants who were the main holder of the scholarship at the time of the interview.

6.2.1 Interview participant 1 (IP1)

IP1 has been in the USA between 6-9 years at the time of the interview. When she first came to the USA, she came with her brother and sister, as she was not married at the time. IP1 indicated her English proficiency was good at the time of her pre-arrival and early arrival to the USA. IP1 started her academic journey by enrolling in an English language center/institute in the USA, and later, she earned her master's degree while in the USA as well. At the time of the interview, IP1 was pursuing her PhD studies in an Engineering and Information Technology field. Later she got married and had her only child (4 years old at the time of the interview). During the day, IP1 had her child in a home daycare owned by an Arabic-Muslim woman recommended by her Saudi friends in the USA. IP1's husband resided with her in the USA during her studies, even though he was not a student himself. IP1 was the main scholarship holder and her scholarship was sponsor by her employer. She was required to complete her graduate studies by her job back in Saudi Arabia.

6.2.2 Interview participant 2 (IP2)

IP2 has been in the USA between 2-5 years at the time of the interview. IP2 is a mother of four children who are between 1-14 years old, and they attended daycare and school during the day. She had her youngest child in the USA. IP2 was the main scholarship holder and came to the USA to pursue her PhD studies as required by her employer back in Saudi Arabia. IP2 had her master's degree before she came to the USA. When she came to the USA, she started her academic journey by enrolling in an English language center/institute. After she finished with her English language requirement, she started her PhD studies in an Engineering and Information Technology field. During her residency in the USA, IP2's husband was not a student and he was going back

and forth between the USA and Saudi Arabia because he could not stay for an extended time in the USA due to his job obligations in Saudi Arabia.

6.2.3 Interview participant 3 (IP3)

IP3 has been in the USA between 2-5 years at the time of the interview. She came to the USA to complete her graduate studies as required by her employer in Saudi Arabia. At the time of the interview, she was pursuing her master's degree. IP3 is a mother of three children aged between 1-10 years old, and she had her youngest child in the USA during her second year of her master's degree. When she first came to the USA, IP3's older child attended school, while her husband provided care for their second child (one and half years old at that time) while IP3 attended an English institute/center. Upon early arrival to the USA, IP3 noted her English language as basic, while her husband did not speak English at that time. IP3's husband was not a student at the beginning of their time in the USA, but later he became a student. When IP3 had her third child, she did not enroll him in daycare due to the high cost of daycare. Accordingly, she and her husband alternate in providing care for him. IP3 chose to do her academic work from home with the help of her husband caring for the children. As she reflected later, she regretted not having separate place/time for her academic work and her family time. IP3 noted her main challenge was maintaining a good balance between her family life and academic life.

6.2.4 Interview participant 4 (IP4)

IP4 has been in the USA between 2-5 years at the time of the interview. IP4 was a scholar's dependent for her husband who received his scholarship through the Saudi government scholarship program. She came to the USA and joined her husband who has been in USA for one and half years before her. When she first came to the USA, her older child was 1 year old, and she indicated her lack of English proficiency at that time. IP4 did not start her academic studies immediately

after arriving to the USA as she was a stay-at-home mother. Later she started her studies by enrolling in an English center/institute in the USA, and then she pursued her master's degree in a Humanities and Social Sciences field. During her master's degree, she had her second child in the USA. IP4 had her older child in an Arabic-home daycare during the day, and later he attended public school. However, after she had her second child (2 years old at the time of the interview), she did not enroll him in a daycare because she could not afford it at the time. IP4 eventually decided to drop out of her school before earning her master's degree. IP4 noted that she spent most of her time caring for her children while her husband was studying in his school. At the time of the interview, IP4 and her husband were planning to go back to Saudi Arabia within two weeks from the time I interviewed her as her husband finished his studies.

6.2.5 Interview participant 5 (IP5)

IP5 has been in the USA between 6-9 years at the time of the interview. IP5 received her scholarship from her employer in Saudi Arabia. Her employer required her to complete her graduate studies as a condition of her employment. IP5 came to the USA with her husband and one child who was one and a half years old at the time. Later, IP5 had her second child (four years old at the time of the interview) while in the USA. As both IP5 and her husband were students, they always had their children in daycare and later in school when the first child became older. Before coming to the USA, IP5 searched for information related to daycare for her infant child, she recalled that she could not find much information online at the time, but she knew that her campus has a daycare. After she came to the USA, she was surprised that the daycare in her campus provides care only for children who are two years old or older. This age restriction made her stressed as she and her husband needed to find another alternative before starting their studies. Then she and her husband met Saudi students on their campus who helped them find another

daycare. IP5 started her academic journey by enrolling in an English language center/institute in the USA, and later, she earned her master's degree while in the USA as well. At the time of the interview, IP5 was pursuing her PhD studies in an Engineering and Information Technology field.

6.2.6 Interview participant 6 (IP6)

IP6 has been in the USA between 6-9 years at the time of the interview. She came to the USA with her husband and her 4-year-old child at that time. Later, she had her second child (one and a half years old at the time of the interview) in the USA. IP6's husband resided with her in the USA and he later became a student himself. IP6 was always concerned about her child's Arabic fluency even before coming to the USA. Initially, she enrolled her older child in a public school, but later she transferred her child to a private school in the USA that teaches Arabic and Islamic studies in addition to English. IP6 had to switch to another major as her main major was not available near to her child's Arabic school. Regarding IP6's second child, she enrolled her in an Arabic-home daycare during the day. IP6 had a bachelor's and master's degrees from Saudi Arabia. Even though her bachelor's degree was in English, upon early arrival to the USA, IP6 faced difficulties related to the English language. Still, she indicated her English skills were better than her husband who did not speak English back then. IP6 was the main holder of the scholarship. She received her scholarship through the Saudi government scholarship program, and she was not employed in Saudi Arabia at the time of the interview. IP6 started her academic journey in the USA by enrolling in an English language center/institute and then started her PhD studies in a Humanities and Social Sciences field.

6.2.7 Interview participant 7 (IP7)

IP7 has been in the USA for two years at the time of the interview. She came to the USA to join her husband who was in the USA before her for one year. She is a scholar's dependent for her husband who is the main holder of the scholarship. Having her husband come to the USA

before her provided many of the basic information she needed related to the USA. While in Saudi Arabia, she followed many of the accounts related to Saudi scholars overseas on Instagram and Facebook. Still, she did not have any communications with these accounts until later when she came to the USA. Upon her arrival to the USA, IP7 reported her English language proficiency as good. Further, she also was pregnant in her third trimester. She indicated that being in a later stage of her pregnancy made it difficult for her to find an OB-GYN in the USA. Many of the doctors and the hospitals she contacted back then refused to take her as a new patient. Eventually, she found an OB-GYN that accepted her. IP7 has one child (2 years old at the time of the interview). During the day, she had her child in an Arabic home-daycare recommended by her Saudi friends in the USA. At the time of the interview, IP7 was not employed in Saudi Arabia. Further, she was studying in an English language center/institute. After finishing her English courses, IP7 is planning to pursue a master's degree in the USA.

6.2.8 Interview participant 8 (IP8)

IP8 has been in the USA between 6-9 years at the time of the interview. She was the main holder of the scholarship as she received her scholarship from her employer back in Saudi Arabia. IP8 came to the USA to complete her graduate studies with her husband who was also a student. During the time of her early arrival to the USA, she noted that she lacked English proficiency and that her husband had better English proficiency than her. She recalled that during that time she and her husband used an electronic-pocket dictionary (Atlas) as smartphones were not popular then. Indeed, IP8 noted that she only started to use social media (WhatsApp) after she came to the USA. At that time, she explained that social media was not popular and, she was concerned about the idea of using social media but later she used other platforms in addition to WhatsApp. IP8 became a mother for the first time in the USA and she had two children (6 and 3 years old at the time of

the interview) who attended daycare and school. Initially, IP8 enrolled her older child in a daycare near to her house as all her neighbors in the complex had enrolled their children in that daycare. However, her older child did not feel comfortable in that daycare. Accordingly, IP8 asked her Saudi friends in the USA about Arabic daycare. They pointed her to another daycare owned by a Muslim-Arabic woman. Both IP8 and her older child felt more comfortable at the second daycare. IP8 started her academic journey by enrolling in an English language center/institute, then she earned her master's degree from the USA. At the time of the interview, IP8 was finishing her PhD studies in a Natural and Mathematical Sciences field and planned on going back to her job in Saudi Arabia.

6.2.9 Interview participant 9 (IP9)

IP9 has been in the USA between 6-9 years at the time of the interview. She came to the USA with her husband who was also a student. IP9 was the main scholarship holder. She received her scholarship from her employer back in Saudi Arabia who required her to complete her graduate studies. IP9 noted her English proficiency as very good even before coming to the USA. Her good English skills allowed her to do further online search about the USA before coming as she searched in English websites and forms back then. After coming to the USA, she and her husband chose to live near her husband's Saudi friends who came before them to the USA. IP9 reflected that living close to her husband's friends and their wives helped her adjust faster in the USA. IP9 became a mother for the first time in the USA. She has four children aged between 2-7 years old, and they attended daycare and school during the day. She started her academic journey by enrolling in an English language center/ institute and then pursued her master's degree. Initially, IP9's husband resided with her in the same state where she pursued her master's degree, but later he moved to another state to further continue his studies. Later, after her husband finished his studies, he went

back to Saudi Arabia to find a job while IP9 and the children remained in the USA. During that time, IP9 was pursuing her PhD studies in an Engineering and Information Technology field. For IP9, during the absence of her husband, she was caring for her children while doing her academic work, which made her experience similar to the experiences of a single mothers.

6.2.10 Interview participant 10 (IP10)

IP10 has been in the USA between 6-9 years at the time of the interview. Initially neither she nor her husband had a scholarship. When they arrived at the USA, they came with their three children. She and her husband came to the USA in hope of finding better healthcare and education resources for their autistic child (4 years old at that time). IP10's husband worked in a Saudi Arabian governmental facility in the USA. However, he needed to go back to his job in Saudi Arabia as they did not allow him to stay in the USA for an extended time. Upon early arrival, IP10 indicated that she lacked English proficiency, and she relied the most on her husband as his English and experience with the USA was better than hers. Having her autistic child improve in the USA and with her husband's mandatory return to Saudi Arabia, IP10 decided to become a student in order to stay in the USA. She applied and received her scholarship from the Saudi government scholarship program. IP10 first attended an English language center/institute, then she started her bachelor's degree in a Humanities and Social Sciences field. During her studies, IP10 found it difficult to connect with her classmates as she did not know other Saudi students in her major, and she did not feel welcome by her non-Saudi classmates. IP10 is a mother of 4 children aged 4 to 14 years old, and she had her youngest child in the USA. Her older children attended school, and her youngest child attended an Arabic home-daycare recommended by one of her Saudi friends in the USA. Among the main challenges IP10 indicated is having her husband going back and forth

between Saudi Arabia and the USA. She always considered dropping out of school, in addition to her social isolation and depression which she developed while in the USA.

6.2.11 Interview participant 11 (IP11)

IP11 has been in the USA between 6-9 years at the time of the interview. She came to the USA as a scholar's dependent for her husband. IP11 became a mother for the first time in the USA, and she has two children (3 and 1 years old at the time of the interview). IP11's husband was a student and he was the main holder of the scholarship. They received their scholarship from the Saudi government scholarship program. Upon her early arrival, IP11 indicated her English proficiency as good. She started her academic journey by enrolling in an English language center/institute and then started her bachelor's degree in a Medical Sciences field. During her studies, she and her husband alternated on taking care of their children. They made that decision due to the high cost of daycare, and because IP11 did not feel comfortable leaving the children with a stranger such as a babysitter or a daycare. She and her husband planned their courses' time accordingly. She had to defer her practical training (internship) until her husband finished his studies so he can care for the children while she did her training. IP11 planned on finding a job upon returning to Saudi Arabia.

6.3TMM step 1: Imagining the USA

The first step of TMM presents the social imaginaries the ISSM participants had about the host country and how their lives would be once they move to it (Allard & Caidi, 2018). According to Appadurai (1996, p. 6) as cited in Caidi (2019), social imaginaries refer to "imagined worlds of places never visited before but socially constructed and imagined through the connections enabled and amplified by information and communication technologies". In addition to social imaginaries, Allard and Caidi, (2018), and Caidi et al. (2019) included the sources the participants in their work

built their social imaginaries from, reasons to move to the host country, feelings, and the information practices during the time of pre-arrival was included under the first step of the TMM.

To that end, I also examine the ISSMs' motivations, feelings, concerns, social imaginaries of the USA, and information practices embedded during the time of pre-arrival to the USA as the first step in the application of the TMM in the following sections.

6.3.1 Reasons for coming to the USA

The ISSM participants were asked to retrospectively think back and recall how they felt back when they decided to come to the USA and the reasons which motivated them to consider traveling to the USA in the first place. Most of the ISSM participants (N=6) came to the USA to pursue their graduate degrees as a requirement by their jobs. Other ISSM participants (N=3) came to the USA as scholar's dependent with their husbands who were studying in the USA, later those ISSM participants decided to study in the USA as well. For the rest of the ISSM participants (N=2), the main motivation to come to the USA was related to their families. In the case of IP6 she decided to come to the USA after her husband and her father encouraged her to take advantage of the Saudi government scholarship program for herself and for her child to benefit from learning English as well. Similarly, IP10 decided to come to the USA in hope of finding better healthcare and education resources for her Autistic son. Later, she decided to study as she shared in this quote:

I made the decision to come to the USA because I have an autistic child. When I was in Saudi Arabia, he was 4 years old. I enrolled him in many private schools but did not feel any benefits for my child. Thus, my husband decided to come to the USA and work in a Saudi governmental facility in the USA. We started a journey for study, treatment, and work at the same time. (IP10)

As to why the participants chose to reside and study in the USA, the ISSM participants chose the USA as it was the country chosen by their jobs, based on the USA's technical reputation,

or culturally diverse society where the USA was perceived to be more accepting of people from other cultures. This imagined sentiment was shared by IP8 in the following quote:

I read so much about America they have acceptance for all religions. Hijab was the first thing for me. The rest of the religious rituals, one can do them without anyone knowing, like the prayer and fasting they are between me and myself, but like in my Hijab, the way I dress, no. That is the reason that made me come to America because they are more accepting for practicing acts of worship. (IP8)

In addition to the educational value the USA would offer for the ISSM participants, as Muslim women prior to coming to the USA, they imagined acceptance and religious freedom to practice as they choose. More importantly, they imagined a sense of safety in that their outward appearance (their Saudi and religious dress code) would not be considered a threat to their well-being in their host country.

6.3.2 Feelings and concerns before coming to the USA

The feelings the ISSM participants described during the pre-arrival phase was mixed between excitement and worry. For instance, IP9 expressed her feelings saying:

I was excited that I will travel to the USA and see the world and study. From the study side, I had high fear because I always had the feeling that because I am coming from Saudi Arabia my academic level is very different from the study level of American students and that maybe I cannot compete. Later, I realized that my thinking was very wrong and that my study level is equal to their study level and above. (IP9)

Concerns about academic difficulties in terms of not being able to keep up with their American academic peers, was not the only concerns shared by the ISSM participants related to their academic life. Acquiring academic admission and mastering the English language were also concerns for some ISSM participants before they came to the USA. Although some imagined the USA as a country with more acceptance compared to other countries because of its cultural

diversity, others imagined and anticipated issues of discrimination and safety as shown in the following quote: “I was afraid of discrimination, when you read you learn about problems. Thus, I was keen to choose a State that is somewhat safe”. (IP6)

As mothers, the ISSM participants had further concerns related to their children’s adjustment in the new culture as shared by IP6:

I had concerns as a mother. The biggest problem was about how my daughter will integrate. She just started to learn to speak, how will she pick up on English and integrate with other children? And how will I teach her Arabic? This was my biggest fear. (IP6)

IP6 emphasized the importance of her child’s adjustment and English language skills, as well as maintaining the Arabic language even before she came to the USA. In addition to children’s adjustment, IP5 added her concerns related to finding childcare and her lack of understanding of how the childcare system worked in the USA:

I was concerned about daycare. I had an infant and I did not know who will take care of him while I am in school and I have many homework which will take much of my time. I did not know about the American system regarding childcare and whether they have daycare or not. (IP5)

It was clear that before coming to the USA, ISSMs had mix of concerns as international students, mothers, and Muslim women moving to a new culture.

6.3.3 Sources of social imaginaries of the USA

The motivations to come to the USA and the concerns the ISSM participants shared in the previous section, contributed to the social imaginaries they had about the USA. For instance, when IP10 was asked in the interview about how she imagined the USA before coming she replied: “I did not imagine it” (IP10). This could be as IP10 main motivation to come to the USA was to get better education resources for her Autistic child and had no point of reference from which to draw

from. Similarly, IP3, whose main motivation was to continue her graduate studies as required by her job, stated that she was very occupied and busy handling many processes related to her job in preparation for her scholarship that she forgot to imagine the USA. She stated: “I do not know if I ever imagine it. As I was very busy, I did not imagine it, I was going to see the reality in the USA” (IP3).

For other ISSM participants who had social imaginaries of the USA before coming, they constructed these imaginaries from multiple sources such as movies, news, or family members who have been in the USA before them. One participant said: “It was exactly what I had imagined, after watching American movies, TV shows and news, you would have a clear vision of what to expect. So, it was exactly what I had anticipated.” (IP1). In addition to the media, another participant added that she built her picture based on her husband’s perceptions as he had been to the USA before her: “my husband came to the USA before me and he gave me all the information and all the perceptions” (IP4).

The ISSM participants talked in general about their social imaginaries related to the USA before coming to it. In most of their answers, they stated their concerns again such being welcomed in the USA, feeling safe, or how they will adjust to the new life in the USA. As the interviews happened when the ISSM participants were in the USA already, the ISSM participants compared the imaginaries they had originally in their minds to the one they saw once they came to the USA. Such as imagining the USA as a place with many fancy buildings as seen on the movies, or an advanced country that mostly rely on electronic transactions rather than paper transactions. These images will be presented in detail under the second step of TMM framework as it took place once the ISSM participants came to the USA.

6.3.4 Information practices during TMM step 1

Information seeking was activated as part of the ISSM participants' planning before coming to the USA (see Table 14). Prior to their departure, the ISSM participants searched for academic information needs and daily information needs related to their anticipated settlement in the USA for themselves and their children. With respect to their academic information needs, the ISSM participants searched for universities that offered the academic major they were planning to study. The academic path that most Saudi scholars follow, including the ISSM participants in this study, is to first apply to get admission to an English center/ institute to practice English and satisfy the English requirements for international students. Then, they apply to get academic acceptance for the degree they are planning to study. All the ISSM participants in this study had their scholarships either sponsored by their jobs or the Saudi government scholarship program. The Saudi Ministry of Education offers a list of recommended/ accepted universities and majors on its website for each country, which all Saudi scholars need to follow irrespective of the sources of their scholarship. This requirement also impacted the way some ISSM participants started their online search for academic universities as shared by IP2:

The only source for searching majors was through the universities listed in the website of the Saudi Ministry of Education. Then, I go to the university website to further know its location and if the major and minor is available in that university (IP2).

The ISSM participants daily information needs included wanting to learn information mainly about housing, transportation, safety, universities, and daycare/schools for their children.

Some ISSM participants reported that they received some general information sessions while in Saudi Arabia related to living in the USA as an international student. Although the shared information in these sessions was helpful, it did not cover information about parenthood or children as shared by IP3 and IP9.

Before coming to the USA, many ISSM participants had basic English skills. This was reflected in the way they searched for information as they relied mostly on Arabic sources. Therefore, many ISSM participants indicated that they used Arabic online forums such as Mobtath¹, mostly for information related to living in the USA, in addition to their use of online search on Google. IP3 shared:

At that time, there was a forum called Mobtath. It was the only source where I received some information related to scholarship. It was a good source when you compare it to nothing as it was based on people's experiences, it was a good source to some extent (IP3).

IP3's comments show that lack of adequate access to information related to the daily living context of the USA was among the challenges some of the ISSM participants had at that time. For those few ISSM participants who had advanced English before coming to the USA, they also searched English forums to find information related to their academic institutes, majors, and professors such as shared by IP9:

I remember that I searched by the names of the professors that taught my major in the university I was planning to attend in the USA. I started to read what other students said about them, because usually if the professor was not good, and there were many other professors also not good I get the feeling that the university is not good or that the major in that university is not good. I remember there were many websites that provided this information; the name of the professors and the name of the university they worked in and then you can see their ratings and reviews (IP9).

This quote emphasized the differences between the search in each language and how lack of English was a barrier to access information online. IP9 was able to access detailed information such as rating and reviews of her future university in the USA. This wealth of information was mainly because IP9 had good English level before coming to the USA, and because she searched

¹ Mobtath in the Arabic language means a scholar student overseas. Mobtath online forum used by many Saudi scholars at the time.

online in English. Accordingly, she received more information about the USA from English online websites compared to the few Arabic websites available at that time.

Most of the ISSM participants have been in the USA between 6 to 9 years at the time of the interviews. Accordingly, many ISSM participants reported that fewer social media platforms existed during the time of their preparation for coming to the USA. While some social media platforms existed, the adoption of social media by Saudi population was not as common as it evolved in the recent years. As shared by IP8: “WhatsApp was not around or anything else. WhatsApp started when I was in the USA it was around 2012 when it first started to be used by Saudis” (IP8). Other ISSM participants reported that they used WhatsApp in the pre-arrival phase, but their use was limited to family and friends and they did not have any scholars’ groups at the time. Facebook and Twitter were also mentioned by few ISSM participants.

Table 14 Shows ISSMs' information practices and experinces during TMM step 1

Information needs	<ul style="list-style-type: none"> - Academic information needs: university admission, academic majors, language institutes to practice English, universities - Daily information needs: housing, transportation, area safety, daycare/schools for children - Having Saudi women in cities/states they planned to study in - Financial and employment were not among the information needs which ISSMs searched for as they had their scholarship
Information sources	<ul style="list-style-type: none"> - Recommended list from the Saudi Ministry of Education website for academic majors and universities - General information sessions about living in the USA as an international student - Basic English level, they relied more on online Arabic sources at the time for information about living in the USA
Social media uses	<ul style="list-style-type: none"> - Social media was not popular among Saudis at the time - Some ISSMs used WhatsApp before coming but had it limited to close friends and family - Other ISSMs did not knew about it until later when they came to the USA
Challenges	<ul style="list-style-type: none"> - Lack of access to information related to the USA daily life due to language barrier and limited online search skills at the time - Lack of understanding of the polices in the USA
Concerns	<ul style="list-style-type: none"> - Cultural adjustment for themselves and their families - Discrimination and feeling welcome - Academic difficulties
Motivations	<ul style="list-style-type: none"> - Job requirement - Family matters - Benefit from the scholarship program initiative
Feelings	<ul style="list-style-type: none"> - Many ISSMs felt excited but had some concerns and worries

6.4TMM step 2: Information dissonance

According to Allard and Caidi (2018, p.1197), information dissonance refers to “the visceral and embodied experience of disruption and confusion created by information encounters within the receiving context.” In other words, information dissonance happens when there is information conflict between what was known before and what was learned later in the host

country. In their study, upon early arrival to Canada, participants had their assumptions disrupted, encountered new information, and found different realities of what they had in their minds about Canada (Allard & Caidi, 2018). Those surprising moments revealed the limited understanding the participants had and thus motivated more information seeking to recontextualize their current knowledge (Allard & Caidi, 2018). While in Allard and Caidi (2018) information dissonance happened early in the participant's arrival to Canada, according to Caidi (2019) based on her study of Hajj, information dissonance could happen anytime of the Hajj journey and not necessarily during the early arrival to the new country. Further, information dissonance step provided insights into the feelings and challenges the participants experienced among these times (Allard & Caidi, 2018; Caidi, 2019; Caidi et al., 2019). On a similar path, the findings from the interviews reported under step 2 of TMM will include moments of disrupted information, assumptions, and feelings during anytime of ISSMs' journey, and the information practices situated during these moments.

6.4.1 Moments of mismatched information

When the ISSM participants came to the USA, they had their own social imaginaries about the USA and what their lives would be like in the USA. As discussed in the first step of TMM, some ISSM participants had confirmation of the same imaginaries they had in their minds about the USA once they arrived, others did not. Of those who had different imaginaries, IP6 was surprised as soon as she saw the airport when she arrived in the USA:

When I first saw the airport, it felt like you are entering a rural area when you compare it to Saudi Arabia's, in my mind I thought it will look better. When I went outside the airport it was dark, no streetlights, and the traffic signals were hanged on wires. That was very surprising to me. Maybe because I arrived at night and I always thought of the USA as I saw in the movies when you see New York, nice buildings and fancy stuff (IP6).

Beside the immediate reflection IP6 shared in her disappointment with the physical environment, other ISSM participants had their assumptions disrupted after they lived in the USA for a while. For instance, IP2 was surprised by difficulty in the business transactions that were still paper based in the USA such as mail and driving licenses process as she shared:

I imagined the USA as an advanced country electronically, especially in procedures and transactions, based on my experience in Saudi Arabia, because Saudi Arabia is very advanced in this field. When I came to the USA I was shocked by the heavily reliance on paper-based transactions such as mail services which considered an important thing in the USA, while it is not that important in Saudi Arabia. Also, I was surprised by the difficulty of the official procedures, I remember it took us long months to get the driving license. I thought living in the USA would be easy but I found that you need to do everything by yourself from A to Z otherwise nobody will do it for you or help you, this really shocked me (IP2).

Other moments of information dissonance reported by the ISSM participants were related to their children daycare and schools. Upon arrival to the USA, IP5 was searching for daycare for her son who was infant at the time. Although, she thought she came to the USA prepared with the information she needed, she was surprised that the daycare on her campus do not take children under the age of two year as she shared:

When I was in Saudi Arabia, I contacted Saudi students in the same university I was going to. They told me there is a daycare on campus. When I came to the USA, I found that the daycare on campus do not provide care for children under two years old. It was huge problem and caused huge pressure on me as I had to start my studies after few days of my arrival to the USA. (IP5)

Similarity, IP2 experienced disrupted expectations related to her child's school in the USA. Before coming to the USA, IP2 had her son enrolled in an international school in Saudi Arabia, as she thought it would help advance his English. However, after she came to the USA and enrolled her child in a public school, she was surprised by the level of English practiced in the school. That is as the English level the children spoke in the American public school was higher than the English

level of her child. Consequently, her child was bullied for his lack of English fluency by other children in the public school. On the other hand, some ISSM participants experienced better imaginaries than what they had in their minds once they came to the USA. For example, IP7 shared: “I was afraid of discrimination because of Hijab [Islamic dress code], living in the USA, and that Americans are rude but thank God the opposite happened” (IP7). Further IP4 added:

My perspective changed, I was afraid about if they [people in the USA] are friendly or not, I found them very friendly more than I imagined [when I came to the USA]....I was afraid if there would be an acceptance for me as a scholar, this was my thinking, when I came here [in the USA] it was normal, I felt normal like everybody else (IP4).

The findings indicate that the ISSM participants had variety of information dissonance moments related to the physical environment and the information landscape in the USA. Some of these moments were stressful such as the necessity to find another daycare upon arrival, while other moments were a relief from certain concerns such as discrimination.

6.4.2 Feelings after coming to the USA

The ISSM participants experienced different emotions when they arrived at the USA. These emotions ranged from excitement to depression and changed over time. Many ISSM participants felt excited in the beginning but then had difficult times as they experienced homesickness and stress. IP11 for instance, who became a mother later in the USA, shared: “I was happy and excited at first but then I started to feel that I miss my family”. In contrast, IP6 who was mother at the time of arrival to the USA, she did not experience much of positive feelings in the beginning as she immediately felt that her responsibilities had doubled as she shared:

I was crying every day in the first year, I was depressed. I felt that my responsibilities increased as my husband did not speak English at that time. I had to do everything by myself, find housing, find a school for my daughter, there were many living expenses, and

I had to find a university to get an academic acceptance, I did not know how to apply, everything was interconnected (IP6)

Likewise, IP2 indicated the difficulty of her first year being in the USA as she shared:

The first year was a disaster for me. I did not adapt at all to the degree that I thought I will go back to Saudi Arabia. In the first few months in the USA, my husband and my children were with me in the USA, so I was fine. Then my husband had to go back to his job in Saudi Arabia and took my two younger children with him. At that time, my responsibilities increased as I still had my oldest son with me, I felt guilty, and I hated my study. I remember that I considered taking pills at that time to help me with the stress and pressure I had, but eventually I did not take them. (IP2)

It is worth noting that many of the ISSM participants who were mothers at the time of arrival to the USA had more concerns compared to the ISSM participants who became mothers later in the USA. For instance, IP9 who became a mother for the first time later in the USA, had no concerns related to childcare, rather she wanted to do more exploring of her city before she started her Master's degree, as she was still studying in the English language institute at the time:

I was excited because I was studying English at that time. I felt good that I was progressing and that my level was fine compared to the other students with me, so I felt relieved. At the time, I was newly married and that was my first city to travel to, thus I was very interested to explore my city before I start my masters and get busy. I remember that I visited museums, zoo, and amusement parks. (IP9)

Similarly, IP1 felt excited in the early arrival period. At that time, IP1 was accompanied by her brother and sister before she got married and became a mother in the USA later:

During the first 3 months, I missed my family and my lifestyle so much, but I was excited about being in a totally different culture that I learned about it day by day. I adapt to changes easily. Both my brother and sister were excited and happy with the new experience, no kids no problem (IP1).

6.4.3 Information practices during TMM step 2

Many of the information dissonance moments the ISSM participants experienced were during the early post-arrival period. The ISSM participants continued to recontextualize the new information and realities they experienced. Upon early arrivals the ISSM participants searched for information about basic needs related to their new lives in the USA such as housing and groceries. For the ISSM participants who had young children at the time of arrival to the USA, they also sought for childcare to take care of their children while they were in school. In addition to their search for the basic daily needs, the ISSM participants also sought for information related to academic needs such as finding academic acceptance, majors, and preparation exams such GRE (see Table 15).

At that time, the ISSM participants started to build their personal connections in the USA, mainly with other Saudi students and sometimes neighbors. Indeed, having a Saudi community in the place where they intended to study was as an important factor when selecting the location of their studies. IP11 for instance, wanted to make sure to live in a place which had Saudi women. She believed having Saudi women in her city of residence is an important source of emotional and informational support. Another example is from IP8's early post-arrival period. She and her husband were seen accidentally by a Saudi student who later became a great source of help to them and introduced them to the Saudi community in that city.

Depending on the time the ISSM participants first came to the USA, some ISSM participants knew and used some social media platforms to stay in touch with families back in Saudi Arabia. While for other ISSM participants who have been longer in the USA, they did not use many of social media platforms. For example, IP8 stated that she did not used WhatsApp up until she came to the USA, because it was not existent, or she did not know about it. Later, she

found out about it and her friends convinced her to use it. For the ISSM participants who had WhatsApp at the time of their arrival they also started to have their social connections built by having WhatsApp groups consisting of Saudi students in their areas. They used these groups to get information such as finding daycare for their children. Other information sources the ISSM participants used were English language institutes/ centers staff, university websites, and Google.

Among the main informational challenges some of the ISSM participants had was not having enough information about the USA context. It could be due lack of language as many ISSM participants were still developing their English skills upon their early arrivals to the USA.

Table 15 Shows ISSMs' information practices and experiences during TMM step 2

Information needs	<ul style="list-style-type: none"> - Recontextualize the new information and realities they experienced once arrived in the USA - Basic/survival information such as housing, and grocery. - Daycare/schools for children - Academic admission and preparation exams for admission - Entertainment information (particularly for non-mother participants at the time)
Information sources	<ul style="list-style-type: none"> - Started to build personal connections in the USA - Co-nationals/Saudi friends in the USA - Neighbors - English institute staff - Online, search engines
Social media uses	<ul style="list-style-type: none"> - For ISSMs who knew and used social media platforms before arriving to the USA, they continued to use them during their early arrival to the USA - For ISSMs who did not use social media before, they learned about WhatsApp and started to use it after arriving to the USA - WhatsApp was used to stay connected to family and friends back in Saudi Arabia as well as Saudi friends in the USA
Challenges	<ul style="list-style-type: none"> - Lack of fully understanding the policies in the USA (e.g. daycare) - Basic English language
Feelings	<ul style="list-style-type: none"> - Felt excited in the beginning of their arrival to the USA - Experienced homesickness and stress later - Sudden increase in their responsibilities (particularly for ISSMs who were the main holder of the scholarship)

6.5 Discussion

This section will discuss the major findings presented in this chapter related to the first and second steps of the TMM. The discussion sections include feelings and motivation for coming to the USA, social imaginaries of the USA, and lastly ISSMs' information practices during their pre-arrival and early arrival to the USA sections.

6.5.1 Reasons and motivations for coming to the USA

To have a full understanding of ISSMs' experiences and information practices during their academic journey, it was important to understand how ISSMs' journey started, and what motivated their transition in the first place. ISSMs like many other groups of international students, had the main goal of advancing their education in the USA. While some groups of international students intend to immigrate to the to the host country they studied in (Worrall et al., 2019), ISSMs always planned on going back to their home country after they finish their studies. This is especially more likely the case for ISSMs' whose academic journey was directly tied to their jobs in Saudi Arabia, the scholarship program initiative in Saudi Arabia, or other family matters. While these motivations/reasons might seem unique to ISSMs, in the literature, similar motivations had been attributed populations similar to ISSMs. Likewise, Binsahl et al. (2019), Saudi Female International Students (SFIS) reported similar motivations for studying abroad in Australia. This similarity indicates that these motivations are true for Saudi international students in general whether they were mothers or not. Keep in mind that some of the women in the current study started out as SFIS and then became ISSMs.

The push factors that drive some immigrants to the host country is the hope and dreams of immediately improving on arrival their overall economic and social well-being. In contrast, the push factors for ISSMs moved to the USA to get a US degree which might be highly valued in

terms of achieving a higher standard of living when they return to Saudi Arabia. At the outset, ISSMs return migration intentions was how they viewed their education journey i.e. as an important step toward building a better life upon their return to Saudi Arabia either to get a decent job or get promoted in their current job. The notion of “better life” was among the main motivations reported in Allard and Caidi (2018). Though in their work, unlike ISSMs, the new immigrants were looking forward to building a new life in the host country rather than their country of the origin (Allard & Caidi, 2018).

ISSMs chose the USA as a place to study for different reasons. Among these reasons was their perception of the USA as a welcoming place and more accepting for diverse cultures and worship acts. Safety was among the main reasons for Saudi female students in Binsahl et al. (2019) to choose Australia as they perceived it as a safer place and more accepting of Islamic customs than the USA and the UK. Nonetheless, the fear of discrimination before coming to a host country remained as a large concern for ISSMs in this study as well as for SFIS in Binsahl et al. (2015b). This fear of discrimination by Saudi females emphasizes the importance of feeling safe and welcomed in the host country for international students in general and ISSMs in particular as Muslim women. Accordingly, international students’ offices/services and academic institutions’ websites in the USA should consider this fear and provide online information on this topic to help alleviate this concern for prospective students. In the land of the “free and the brave” and a country of immigrants personal safety is seen an individual problem rather than a societal concern.

6.5.2 Feelings during pre-arrival and early arrival to the USA

ISSMs had a wide range of feelings from excitement to worry before they came to the USA. After coming to the USA, many of the ISSM participants were excited, but later they experienced difficult feelings such as homesickness and stress. Homesickness is a common feeling

which many international students experience during their cultural adjustment to a host country (Lefdahl-Davis & Perrone-McGovern, 2015). Upon ISSMs' early arrival to the USA, many participants missed their families back in Saudi Arabia and expressed frustration with their increased responsibilities as they were the ones who had better English skills compared to their husbands. Having their children and husbands joining them in America provided immediate support for ISSMs, but it also introduced family responsibilities. Many ISSMs were concerned with, not only their own adjustment, but also their entire family's (children and husband) adjustment in the USA. Usually when we think about international students, we think about them as individuals rather than a member of a family with other possible life roles such as parenthood. This could explain why much of the literature related to international students and information studies (e.g. Alzougool et al., 2013; Chung & Yoon, 2015; Oh et al., 2014; Sin & Kim, 2013) tended to focus less on the needs and adjustment of the international students who are also parents. Thus, this study extends the international students and information studies' literature on female international student by including information on students who are also mothers. Accordingly, it is important when providing help to ISSMs or other international students' groups who are also parents to consider their other possible life roles and responsibilities in addition to their academic roles. Examples of anticipated support could include providing a list of trusted/ recommended daycare online on American academic institutions' websites as part of the services provided for prospective student-parents and domestic student-parents as well. It is clear that the literature on academics and motherhood have not caught up to the reality that students can be mothers and mothers can be students (Springer, Parker, & Leviten-Reid, 2009).

6.5.3 Social imaginaries of the USA

In Allard and Caidi (2018), the study's population had very specific social imaginaries about the host country and how their lives would be once they immigrated to it. Similarly, in Caidi's (2019) study about the Hajj journey to Makkah, the pilgrims also had certain social imaginaries about Hajj and Makkah. Hajj is a spiritual experience and many Muslims are looking forward to performing it. It is not surprising that the immigrants in Allard and Caidi (2018) and the Hajj's participants in Caidi (2019) had very specific social imaginaries as both events were important milestones for both populations. For ISSMs, as shown from the interview study, not all of them imagined the USA or their life in the USA before departing Saudi Arabia. For these participants, it is possible that coming to the USA was not among their main goals before, or because they knew that their stay in the USA was a temporary one and only for education purposes.

For some of the ISSMs who had social imaginaries of the USA but have not been in the USA before, they imagined the USA as they saw in movies. Examples from the interview data included one participant's immediate disappointment of the physical environment upon arriving at an American airport. These findings came from ISSMs who were in the USA for several years before the wide adoption of social media by Saudi community. It could be that new international students from Saudi Arabia would have more accurate imaginary of the USA and information based on the experiences of previous scholars. In many cases, previous Saudi scholars share their experiences on many social media platforms compared to only few Arabic forums at the time of ISSMs pre-arrival. The experiences of previous scholars are great information source for newcomers, because many of these experiences had pictures and were written in their native language. It could be beneficial to have some of these experiences documented online on academic institutions' websites for future students upon the desire of some of these previous scholars.

Having these experiences documented online would allow more accessibility for information beyond limited closed WhatsApp groups, and would document the experiences of previous students from the same culture/ background.

6.5.4 Information needs during pre-arrival and early arrival to the USA

Before coming to the USA, ISSMs' information needs were a mix between daily, academic, and children needs. It included information about housing, safety, daycare/schools, transportation, and universities admission in the USA. These information needs remained the same even upon arrival of ISSMs to the USA. ISSMs searching for basic information, such as housing and transportation, confirms earlier findings in Oh et al. (2014) concerning information needs for international students upon their early arrival to the host country. Though as the population investigated in Oh et al. (2014) were not parent or mothers, information related to children daycare or schools were not among the immediate needs noted by their sample of international students. For ISSMs, providing a reliable care/education for their children was among their urgent needs upon arrival.

On the other hand, information regard recreation was noted as a later information needs for the international students sampled in Oh et al. (2014). In this sample, the ISSM participants who were not mothers at the time of their early arrival to the USA, they sought information related to entertainment activities in their first year of being in the USA. This difference could be as ISSMs planned on being mothers later and wanted to explore more fun activities before having motherhood responsibilities. The assumption that all international students are one homogeneous group who share similar information needs and similar priority for each need is not accurate. While ISSMs sought some of the information needs which noted as survival needs for international students in Oh et al. (2014), ISSMs also sought information related to their children needs and

entertainment during their early arrival. Thus, it is important to consider different characteristics such as family roles and sociocultural factors of different groups of international students as these differences impacts their information needs. International offices in the USA should be more inclusive by providing a wider range of information to international students beyond academic information.

6.5.5 Information sources during pre-arrival and early arrival to the USA

Despite the active information seeking ISSMs performed during their stay in Saudi Arabia, the information they received was not satisfactory. Many of the ISSM participants had limited English skills at the time, so they relied mostly on Arabic information sources such as Arabic forums for Saudi scholars at the time. ISSMs' reliance on Arabic information sources during their pre-arrival to the USA confirms the earlier findings by Binsahl et al. (2015b). Their participants also lacked English skills during their pre-arrival to Australia and searched mostly on Saudi websites they were aware of to find information related to Australia (Binsahl et al., 2015b). Accordingly, it is important to provide information for prospective students in languages other than English.

Relying on Saudi scholars' experiences in Arabic forums could be further interpreted as ISSMs wanting to learn about their own community's experiences and gather information interpreted through their own community's eyes as this is what was contextually relevant for them. The ISSMs who had good skills in the English language at the pre-arrival phase still navigated these Arabic forums. These forums were the only available information source considering the absence of social media platforms adoption by the Saudi community back then. This preference of appreciating same community experiences is not unique to ISSMs. Several researchers (e.g. Alasmari & Komlodi, 2016; Caidi et al., 2010), note that information shared within communities

and cultures have more value for those community members as they share the same values, culture, and background. Thus, the information is filtered and interpreted through the same cultural lenses shared by members of the community.

6.6 Summary

In this chapter the first part of the interviews findings was presented and discussed. Particularly, under the first and second step of TMM which corresponded to the time of pre-arrival and after arriving to the USA. In the next chapter the second part of the finding will be presented under the remaining steps of TMM.

Chapter 7 The Interview Study: Living the Academic Journey in the USA

7.1 Introduction

The first part of the findings from the interview study was introduced in the previous chapter. In this chapter, the second part of the findings will be presented and discussed (the findings were distributed over chapters 6, 7, and 8 to maintain appropriate length of each chapter). Similar to chapter 6, the Translocal Meaning Making (TMM) framework by Allard (2015) and Allard and Caidi (2018) will be used to map the findings. Particularly, step 3, step 4, and step 5 of TMM will be included in this chapter.

This chapter's sections proceed as follows: first, findings related to step 3 (increasing sophistications and understanding of the USA information landscape) are presented. Second, the findings related to step 4 (reimagining the USA and Saudi Arabia) are introduced. Third, findings related to step 5 (social imaginary of the journey re-imagined) are given. Next, the discussion of these findings; and lastly a summary of the chapter will be discussed.

7.2 TMM step 3: Increasing sophistications and understanding of the USA information landscape

In the third step of TMM, according to Allard and Caidi (2018), the participants continued to settle and gain more familiarity with the host country. The participants encountered the local information landscape through wandering (Lingel, 2011) which provided them with new potential information resources. Further, their information practices evolved from general to more specific and independent (Allard & Caidi, 2018).

Similarly, in this study, as the ISSMs settled and adjusted to the USA, they continued to have increased understanding of the USA's information landscape through wandering (walking around

physical spaces) and experiencing more social connections. In the following sections, I describe exploring the USA information landscape, then I present adjustment and coping strategies, and lastly, the information practices during TMM step 3 are described in the final section.

7.2.1 Exploring the USA information landscape

ISSMs explored the USA information landscape either intentionally or accidentally. IP9 for example, knew about public library services for children because she passed by one of the public libraries in her city and saw the children's section through the glass door of the library. Despite her knowledge about public libraries, she did not become a member until a later time. She regretted that she did not become a member in the library earlier. In her mind, she thought becoming a member in the library would require extensive procedures, questions, and time.

Another mother, IP3, encountered information by wandering near the hotel she lived in when she first came to the USA. In her case, this encounter was related to housing information as she saw an apartment for rent in a complex. IP3 later noted that she wished she conducted more research about daily information needs, such as housing, while she was in Saudi Arabia, but she did not. Accordingly, she was surprised by the housing policies and the huge amount of money required for renting. For instance, when her leasing office asked her for a "money order," she was unfamiliar with this concept and said,

Money order is a totally new concept for me. The idea of going to the supermarket to give them money and in return they gave you a check is a new information for me, and I had no idea about it before (IP3).

Other ISSM participants intentionally went to examine the physical landscape to get a sense of the information they could not find online at the time. Among these ISSM participants is IP2 who went to visit the physical campus of one of the universities she applied to. She wanted to get

a feel of the campus' environment and see what the online pictures usually do not convey. IP2 shared,

I wanted to see the physical campus of the university I applied to before I study at it. It is very important for me. I heard that the university is in a dangerous place, but when I visited it, it was very dangerous because this was not showing on the online websites. The streets were full of homeless, to the point that the university building had security officers and the gate get closed. There were police in the streets, I was surprised to see many police everywhere. That area was a little terrifying (IP2).

Even though IP2 knew that the university she applied to was in a dangerous area, visiting the campus surprised her. During that visit she was amazed by the many police cars and homeless people in the streets around the university.

Safety was an important principle for IP2. Similarly, IP8 had safety as one of her main concerns. After being in the USA for a while, IP8 wanted to move to another city in a different state. She searched online to learn more about the new place she was moving to and was shocked that the crime rate in that city was very high. Accordingly, she asked her fellow Saudi friends in the USA, and her husband decided to go on a road trip with his friends to explore the city. Once her husband and his friends arrived in that city, they felt relieved and learned from other Saudi students in that city that crimes usually only happened in certain neighborhoods which they could just avoid living in. Visiting the city along with the confirmation of their social connections relieved IP8's fears and concerns. Later, she and her husband decided to move to the new city.

Traveling and exploring that city was a result of IP8 and her husband becoming more familiar with the USA information landscape and had constructed more social connections. Because she knew more about the college application process, she applied and was accepted to an English language institute in that city. In her previous city, she received a spot at the English language institute through the help of a travel agent while she was in Saudi Arabia. After her arrival

in the USA and after learning a bit more, she had increased understanding which led her to be more independent, and on her own acquired acceptance at the second English institute.

Understanding more about the USA information landscape also helped the participants feel more independent and adjusted. IP6 for example, despite her good level of English upon arrival, only felt adjusted in the second year of being in the USA. When asked about what helped her adjust to the USA she said, “when I started to understand the strategy about everything. How to apply to universities, how to call the electricity company, the Internet provider, and the phone company. I mean you start to understand, in the beginning I understood nothing” (IP6). Understanding how things work in the USA such as the learning how to apply to universities and dealing with utilities companies, helped IP6 feel adjusted. This means that while having a solid grasp of English language skills helps, having a more sophisticated understanding of the information landscape is as important as language abilities themselves. Further, that understanding of the information landscape helped with her feelings of being adjusted to the host country. Other ways of adjustment and coping strategies will be presented in the next section.

7.2.2 Adjustment and coping strategies

Among the other factors which helped the ISSM participants adjust, especially during the early times of being in the USA, was social connections. These connections provided informational and emotional support for ISSMs. IP10 for example, reported that for her to get information and adjust, language was a barrier. Thus, in her early period of being in the USA, she mostly relied on her husband for information and emotional support. However, as she started to meet other Saudi women in the USA and began studying at the English institute, she started adjusting to living in the USA better.

Even with a good level of English comprehension and information search skills, social connections remain an important venue for emotional support for ISSMs. IP9 shared that having the wives of her husband's friends residing in her city when she first came to the USA helped her tremendously when adjusting to the USA.

Honestly having the wives of my husband's friends really helped me. I like to depend on myself, I did not use these people for information but their existence was very crucial for me to adjustIt gives you a comfortable feeling that you are not alone, that someone is always with you if something happened and available to hear you. And they lived in the same place as you, have the same circumstances, and the same feelings as you (IP9).

Receiving support from Saudi friends in the USA did not only help with ISSMs' adjustment, but it further helped with their children's adjustment. IP6 reported that her daughter had a difficult time adjusting to the USA as she missed her cousins and friends back in Saudi Arabia. Her child repeatedly asked her to go back to Saudi Arabia as she did not like being in the USA. Later, IP6 met a family from Saudi Arabia who also had children. The two families became close friends and IP6's daughter developed a friendship with the children in that family and finally started to like living in the USA.

In addition to a close relationship with Saudi friends in the USA, social connections for some ISSM participants included people from countries other than Saudi Arabia. These people had similar cultural practices and were Muslims. A main communication channel was WhatsApp groups. Many ISSM participants noted the variety of readily available groups, such as mothers in the USA, Muslims in the USA, Arab groups in the USA, and location-based groups depending on the city the ISSM participants lived in. IP3 learned about these groups through one of her Saudi neighbors who became the connecting point to join some of these groups.

When I moved and started my master's degree, I met my neighbor. She introduced me to the existing WhatsApp groups as she was a social person. She knew many women and they communicated through many groups. I joined the group of the women in my city and two

other close cities to where I live. It became a community. When I joined these groups, mentally I felt relieved, I felt if I needed to ask something, I know who to ask (IP3).

For IP3, having access to social connections and information provided a sense of community and comfort. However, IP3 only joined these groups after she met with her neighbor. Despite the information exchanged in these groups, IP3 noted that occasionally the information exchanged was random and not enough.

7.2.3 Information practices during TMM step 3

This section will recap and further expand on the information practices in this step as the ISSM participants continued to learn about the USA information landscape (see Table 16). The ISSM participants' information needs remained similar to their information needs in the pre-arrival step but continued to evolve. They still sought information related to academic, and daily life. This information was related to universities, academic acceptance, housing, daycare/schools, safety, transportation, ethnic stores, and health care information.

Language was a barrier for some of the ISSM participants early in their arrivals. Later the ISSM participants started to improve their language skills and their social connections expanded. These connections consisted of Saudi friends in the USA and other ethnic groups who had similar cultures or religion. These connections took place in physical space as well as in online spaces specifically WhatsApp groups. These groups provided a sense of community, emotional and information support.

Regarding information seeking behavior, the ISSM participants encountered information accidentally (Erdelez, 1997) as well as intentionally. In addition to online searches, some ISSM participants reported that visiting the physical space/location was an important source of information which helped them make sense of that place. Other sources of information included

recommendations from the ISSM participants' personal, online social connections and Google search.

Table 16 Shows ISSMs' information practices and experiences during the TMM step 3

Information needs	- Similar to their information needs in the pre-arrival, related to academic, and daily life: universities, academic acceptance, housing, daycare/schools, safety, transportation, ethnic stores, and health care information
Information sources	- Expanded social connections (Saudi friends and other ethnic groups in the USA) - Connections took place in physical space and in online spaces (WhatsApp groups).
Information seeking behavior	- Walking around/ wandering (e.g. found apartments complex) - Accidental encountering (e.g. saw the public library) - Visit physical space to make sense of the information (e.g. campus visit) - Increased understanding of the USA information landscape (e.g. how to apply to universities and dealing with utilities companies)
Social media	- WhatsApp groups provided a sense of community, emotional and information support.
Feelings	- Understanding more about the USA helped them felt more adjusted - Having co-nationals helped them and their children to adjust

7.3 TMM step 4: Reimagine the USA and Saudi Arabia

In this step, Allard and Caidi (2018) suggests that, newly immigrated individuals reimagined their understanding of Winnipeg based on their growing experiences and knowledge. They continued to have ongoing reflections and they readjusted their goals based on Winnipeg context (Allard & Caidi, 2018). Living in the host country changed their perspective about their previous lives in their home country. As a result, they understood their lives and emotions relationally by comparing the host country and their country of origin (Allard & Caidi, 2018; Caidi et al., 2019). As a way to cope, they broadened their social networks and became more connected with co-ethnics (Caidi et al., 2019).

ISSMs, as they settled, their experiences and understanding of the USA information landscape increased. They continued to have their reflections and goals readjusted based on the current context in the USA. Moreover, they continued to compare their current lives and feelings in the USA to their lives back in Saudi Arabia. Unlike the immigrants' population explored in Allard and Caidi (2018), ISSMs always planned on returning to Saudi Arabia after they finish their studies, and thus, they perceived the USA as a temporary home.

The following sections are about readjusting goals, understanding their lives relationally, the overall journey impact on ISSMs, and lastly information practices during TMM step 4.

7.3.1 Readjusting goals

ISSMs continue to settle in the USA and have more experiences with the USA information landscape. In some cases, ISSMs readjusted their goals based on the new realities they faced in the USA. For some mothers this meant readjusting their original plans such as changing majors, place of living, or dropping out of school. Among those mothers was IP4, who was pursuing her master's degree in the USA, but later had to drop out of school after she had her second child.

In the beginning it was fine when I had one child but when my second child was born, I could not continue my studies. He was a newborn and it was hard to take him to anybody, so I had to stay home with him. (IP4)

In her case, IP4 could not balance the load of academic work and providing care for her two young children. Lack of family support and the high expenses of daycare were among the main factors that prevented her from finishing her degree and eventually she had to drop out from school. It is worth noting that IP4 was a companion for her husband who was a student and the main holder of the scholarship at the time.

7.3.2 Understanding their lives relationally

Comparing differences between their country of origin and their new country, the ISSM participants reevaluated aspects of their life such as motherhood, new ways of parenting, new perceptions about libraries, and new feelings. The following are more details about each aspect.

7.3.2.1 Being a Mother in the USA Versus Being a Mother in Saudi Arabia

IP3 had her third child in the USA. Despite her husband's support, balancing her academic work and motherhood became increasingly challenging for IP3. IP3 was the main holder of the scholarship, while she did not drop out of school, balancing the two roles impacted her mental and physical health.

I had my third child during the second year of my master. I thought I will be able to balance both roles, I wished I realized and knew about all the difficulties I will face. Being pregnant affect your stamina, mental health, and your overall acceptance of things. (IP3)

IP3 became a mother while she was doing her undergraduate studies back in Saudi Arabia. At that time, she emphasized the help she received from her family with caring for her children. Comparing the two experiences, she found that being a mother and a student in the USA is increasingly challenging as her responsibilities had dramatically increased with the absence of her family support.

Similarly, IP9 reflected on the differences of being a mother in Saudi Arabia versus being a mother in the USA.

The mother who became a scholar overseas and have children has a different nature. We did not receive a complete clarification. I feel even the people in Saudi Arabia do not know the amount of suffering we have. Maybe because in Saudi Arabia, we used to see mothers who were students as they got married in early age while they were in high school and it was normal, but the high social support when you are in your home country, your family, and the help you get from the home maid, all make a huge different (IP9).

IP9 shared that her perception about being a mother and a student had changed once she came and lived in the USA. Based on her observation, in Saudi Arabia, it is usual for many women to get

married early and have children while being students. However, mothers in Saudi Arabia received more help than mothers in the USA because the high social support they can receive from their families and home maid(s).

7.3.2.2 New ways of raising children

Another aspect ISSMs reflected on was the new ways they learned to raise their children after living in the USA. Both IP8 and IP3 shared some of their experiences related to parenting their children. IP8 thought that her child was supposed to follow all her rules and orders without any discussion, until her child went to the elementary school. After attending an American elementary school, her child asked for the justification and reason behind IP8's rules. IP8 had to adjust to a new parenting style which was not how she had been parented to as a child herself. Similarly, IP3 shared her observation and adaptation to the new parenting styles she learned while in the USA. Both mothers IP8 and IP3 liked the new ways of communicating and raising their children that they were exposed to. IP3 shared:

In the USA, people talk to children as if they were adults and the child is respected. Meaning you cannot pull the child from his hand; you have to talk with him if you want to take him to a certain place. I liked the atmosphere of respect for this small being, so I adopted this style and I liked it. The culture in Saudi Arabia make you control the child more than understanding him. For example, you take him, you carry him, and you make him sleep. You do not ask him what he wants or if he agrees to do a certain thing or not. Maybe this what I used to see in my family, so I liked treating the children as a respectful person. I noticed that even the children behavior in the USA is calmer compared to some of the children I knew in my family. (IP3)

Changing the traditional ways of parenting was not the only learning moments ISSMs had. Appreciating the cultural differences between the two countries was also seen as a great advantage as explained by IP1.

I don't worry about cultural differences. I love it! I want to raise my child to be open minded and accept people with different backgrounds. I would say I got lucky to have this chance to teach her both cultures. She had a great chance here to learn two languages and be around different people. (IP1).

7.3.2.3 Libraries in the USA and Saudi Arabia

Adopting to a new parenting style was not the only positive experience the participant learned while in the USA, going to libraries was another positive experience for many mothers in this sample. Some of the ISSM participants, went to academic libraries while other mothers did not go to academic libraries during their studies in Saudi Arabia. When they came to the USA, some mothers visited the academic libraries on their campuses and public libraries in their cities. Many of them reported their experiences as positive experiences that changed their perception about libraries being just a place for books to a place for doing academic work and having fun for themselves and their children. IP2 shared that she loved her experience in her neighborhood's library so much that she asked the library's staff how she can donate to support the library. Another mother shared the moment she discovered that the library was a place for children.

In our Saudi culture, the idea of libraries that it is not a place that children usually like, rather it is a place for university's students. Academic libraries have the books you need when you do a research or a project but here in the USA, the idea of public libraries is nice, and it targets children as it has books for children and many options. This is what surprised me, I liked the idea because it is a beautiful place for children as they learn and have fun, I am not used to the idea of children going to libraries before. (IP5)

Many of the ISSM participants wished they could transfer the concept of public libraries and its services to Saudi Arabia. While there are a few public libraries in Saudi Arabia, as reported by some of the ISSM participants, these libraries are huge and located away from their houses.

7.3.2.4 Feelings and mental health

Despite the ISSM participants' positive experiences with parenting styles and libraries, there were moments where they experienced adverse feelings. Among the mothers who experienced difficulties are IP3 and IP10. In the case of IP3 she started to notice physical compulsions such as a fast heartbeat as well as the urgent need to leave whatever she is working

on and go for a run to reduce her adrenaline levels. These symptoms were not something she had when she was in Saudi Arabia and only started while she was in the USA. Looking for an explanation, she searched online to understand why she experienced these symptoms. She found that stress could cause these symptoms, it was not much of a surprise for her as she knew she was stressed. She tried to ignore these feelings because she was busy with her research. Among the main reasons for her stress were her new feelings that came with living in the USA. These feelings were related to not being able to balance motherhood and academic life. Further, her continued feelings of being less than other students and blaming herself for not being the good student she used to be in Saudi Arabia every time she faced an obstacle in her research.

To cope, she searched for topics such as how to increase self-esteem and manage time in addition to her academic search. Beyond the information she was able to find online, IP3 still realized she needed more professional support, thus, she considered going to a doctor. In the beginning, her husband disagreed and thought she did not need to go as he did not realize how seriously those feelings impacted her. Initially she did not go. Eventually, she had to go to the doctor because her symptoms continued to worsen. Her doctor prescribed medication to help with her stress, but IP3 was concerned with the long-term effects of these drugs. She decided not to take her prescription in the hope that all her stress would disappear after she completed her master's degree.

Another mother who had similar feelings to IP3 was IP10. In her case, she not only had stress, but she also became more socially isolated to the point of depression. Like IP3, these mental health episodes were not conditions that IP10 had struggled with in Saudi Arabia.

In Saudi Arabia, I was a happy and a fun person who loved to laugh and socialize with people. Now, in the USA, I changed to a person who do not like people, who is not fun anymore, and I prefer to be lonely more than socializing with people. (IP10)

IP10 expressed that she hated studying and that she wished she was never accepted into her academic program. Later, IP10 found that she also had ADHD (Attention Deficit Hyperactivity Disorder) and started to take prescribed drugs for depression and panic attacks. When I asked her if she tried therapy sessions, she said that her scholarship's medical insurance only covered a limited number of sessions, so she only attended few sessions.

The feelings shared by IP3 and IP10 are not surprising because they resulted from understandably huge responsibilities and anticipations expected from these scholar mothers. It is worth noting that both IP3 and IP10 were the main holders of the scholarship. However, IP3 and IP10 differed in that IP3's scholarship was sponsored by her job, and her husband accompanied her during her stay in the USA. IP10's scholarship was sponsored by the governmental scholarship program, and she was alone with her four children without her husband in the USA as he did not stay with her during the entirety of her stay in the USA.

7.3.3 The Overall Journey Impact on ISSMs

In Caidi's (2019) work, in step 4 of TMM, she described the impact of the Hajj journey on the Hajj's participants such as learning to be patient and be more connected to God. Similarly, in the interviews, the ISSM participants were asked whether their academic journey and being in the USA thus far had any impact on them. They shared some of the changes they had noticed in their personalities, children, and information practices. The following sections will expand on each aspect.

7.3.3.1 Impact on personality

Some of the characteristics the ISSM participants developed while being in the USA were being more independent, more accepting of other cultures, as well as more patient and compassionate with their children. IP4 shared, "being a mother and a student impacted my

personality. I became more independent and stronger. My time is not only for me but also for my children. I learned to take full responsibility and became stronger than before” (IP4). Being more accepting of other cultures was a main change shared by many ISSM participants such as IP5.

In the USA, there is many international people from everywhere not just from Saudi Arabia. You will find people from China and India; I mean accepting other cultures was a very clear thing ever since my first year in the USA when I was studying in the English language institute (IP5).

Further, IP8 shared how she became more patient and compassionate with her children.

During my journey to the USA, I felt that I became more compassionate and caring with my children. I think if I was still in Saudi Arabia maybe I would not develop these characteristics, being patient, take full responsibility, and being close to my children. Maybe I would still have these characteristics [even if I did not come to the USA] but they would not be the same as what I have right now (IP8).

ISSM participants acknowledged that the experience of living in the USA impacted their perceptions and ways of doing things. They saw themselves as changed beings and in many ways that they viewed these changes positively. The next section will present some of the changes experienced by ISSMs’ children as well.

7.3.3.2 Impact on children

In addition to the impact the journey had on their personalities, some of the ISSM participants noted impacts on their children. Among these ISSM participants was IP3 who shared that her children developed better soft skills as a result of their education in the USA.

I noticed that my children got better education. They gained personal skills. I think they developed them from their presence in the USA. If they were not in the USA, they would not have had their soft skills improved. These skills such as the ability to express when they want something and have creative thinking (IP3).

As shown in the previous quote, the participants felt that their children were impacted positively by being in the USA. Other ISSMs noted that being in the USA impacted their children’s Arabic fluency. Arabic is the main language of Saudi Arabia. Many ISSM participants mentioned the importance of having their children master the Arabic language. All the ISSM participants in this

interview were planning to go back to Saudi Arabia once they finished their studies. Concerned about his Arabic, IP2 shared the worries her oldest son had.

He always blames me because we came to the USA. He says “I am not good in Arabic because we came to the USA and I will get bad grades” [in college preparation exams] because we came to the USA. This makes me feel guilty (IP2).

These previous quotes show the various impacts felt by ISSMs’ children. The next section will present the impact of the academic journey on ISSMs’ information practices.

7.3.3.3 Impact on information practices

Exposed to the information context of the USA and being a student impacted the way ISSMs searched for, shared, trusted, and evaluated information. Among the main changes noted by the ISSM participants was their concern for English language improvement for themselves. This improvement affected their online searches in a positive way in addition to their growing experiences with searching as a requirement for their academic studies. One of the ISSM participants said “when I searched before, most of my search was in Arabic. During my stay in the USA, I progressed to search in English, I rarely write something in Arabic now” (IP3). IP3 used to search online using Arabic keywords, but later as her language improved, she now mostly searched in English and rarely used Arabic as she used to. Similarly, IP10 and IP4 added the following regarding their search experience:

I am now addicted to Google. Thank God, my language became better and that helps me search about anything I want. Before I used to rely on asking people, now I depend on Google to get the information I need (IP10)

Now when I search, I find the information easier than when I first came to the USA. I know how to search very well now, before I used to search in general, now I do deep search. I used to write one or two words in English and not write exactly what I want so, I get many information back and I get lost. Now I know the words to write and I know that if I go to the website itself it will give me the information I want (IP4).

Both IP10 and IP4 perceived that their improved English skills lead to better search experiences in the USA. IP10 learned how to search on Google to get information rather than asking her social

connections. IP4, also learned how to use the right terms when searching online on Google and do more in depth online search such as going to a certain university website to get more information. The reasons behind IP10 and IP4 search skill advancement was their continued practice, need to search as part of their academic work, and improved language skill. All of these factors helped them improve their online searching.

Mastering online searching was not the only aspect which changed in ISSMs information practices. Source usage and evaluation of information were also impacted. Some ISSM participants, such as IP1, had their information sources expanded. In particular, IP1 said, “in Saudi and the first 3 years in the U.S. I can say I rely more on friends and family members to get information needed compared to the last four years, where I mainly use search engines” (IP1). In her case, IP1 had their information sources expanded from family and friends to include search engines. Another aspect related to information sources was shared by IP8. She became more aware of the quality of information and the importance of good information sources.

I know that if I am searching for something, I have to search from a book from a strong academic library. When I read certain research papers, I know their sources, before when I did research I used to take the information and do not care about the source which the information came from if it is strong or not if it is trustworthy or not (IP8).

IP8 learned about the value of information sources such as academic libraries and how to evaluate information based on their sources. Developing critical thinking and the ability to accept or reject information was also among the changes reported by IP3.

From trust angle, I developed critical thinking, I do not believe everything I read or hear. Before, most of the things you receive you take it simply but, with the study in the USA, the skills improvement, and the study experience itself make you accept things and reject other things. This is the same of my information receiving, there is information that I do not believe, or find it suitable for me and so things are not just being received (IP3).

IP3 added that she experienced a similar impact on her information sharing behavior in daily life and on social media as well.

Before when I received broadcasts, I shared them. Later, from your life experience in the USA, I felt that I will not share something that I am not sure from. I developed the feeling that if it is shared by me, I will be the one who is responsible about it (IP3).

Another aspect the ISSM participants learned was the value of online reviews, which is a new concept they learned while in the USA.

Before I did not read reviews, I did not care about them because in Saudi Arabia we do not rely on reviews. The concept of online reviews started to become popular currently, it did not exist previously. When I came to the USA, I did not care about the idea of places reviews, I cared if the place is close to me, so I go and evaluate it myself. I was not much focused on the concept of reviews. With my experience, I started to focus on reviews, this had five thousand reviews, rating is three out of five, so I started to focus and read reviews (IP2).

Regarding social media usage, as noted earlier, many ISSM participants did not use social media platforms before they came to the USA.

I did not use social media before coming to the U.S. as they were not that popular. In the first two years, I used social media to connect to my family and keep up with Saudi news. Now I use social media to connect with my family, read for experts in my field, and waste some time (IP1).

As shown in the previous quote, not many people used social media platforms in Saudi Arabia back then before this participant came to the USA. Social media platform became more popular among Saudis later, and thus more ISSM participants started to use them. They continued to use mostly WhatsApp and Snapchat. Other platforms included Instagram, Twitter, and Facebook. One participant shared about the importance of WhatsApp to her: “From the day they invented WhatsApp, it became a part of my life” (IP6). Another participant shared the top three platforms she used mostly as she shared:

Currently, Snapchat is closest platform that connect me to my family, everyone uses it. For example, they share occasions and daily life events. Second is WhatsApp, everyday I use it to communicate with my friends and family in Saudi Arabia, it has the groups that connect me to people if I want to ask about something. Third is Instagram, I use it as a magazine to explore everything. I mean I follow account that related to children, cooking, and fashion. If I go anywhere, I write the location name it shows me what that location has related to restaurants, touristic and historical places (IP11).

When I followed up with IP11 about location use on Instagram as compared to Google she said, “Google is better but in Instagram I can see people experiences they include a picture and a report under it” (IP11). Facebook was not very common among the ISSM participants. While some of the ISSM participants had a Facebook account, they did not use it frequently. IP11 said “Facebook is not new, but I feel that I did not start to use it until I came to the USA. I noted that Facebook is more used in the USA by Americans” (IP11).

Despite the changes associated with adopting social media platforms during their academic journey, many of the ISSM participants had their privacy preferences set to the same as they were before. They do not share personal selfies publicly, have their accounts set to private, and limited to family and close friends. IP1 shared that “it is a culture thing; I cannot share my selfies or videos with anyone but my family. I don’t feel comfortable Even my friends would not take picture of me” (IP1). Similarly, IP2 added that when I asked her whether she noted any changes in her sharing behavior on social media, “it did not change. From the beginning this is my believe, I do not share my personal information publicly and this remained the same until now, I only send them to my family” (IP2). Some aspects of ISSMs’ information practices were impacted by their academic journey while other aspects remained the same. The following section will present information practices during step 4.

7.3.4 Information practices during TMM step 4

This section will recap and expand on the ISSM participants’ information practices during step 4 (see Table 17). As the ISSM participants spent more time in the USA, their understanding of the information landscape increased. They learned from their academic experiences, improved their English skills, and expanded their social connections. Social media platforms, particularly WhatsApp groups, were primary source of information for the ISSM participants. Regarding these

groups' emotional value, they provided some emotional support to some extent, but it was not always enough as some ISSM participants needed more emotional support beyond the brief information exchange among these WhatsApp groups.

In most cases, culture impacted ISSM's participation with these WhatsApp groups in terms of having segregated groups for women and men. Further, these groups were location-based, meaning it consisted of people who resided in the same place/region. The ISSM participants noted that being in groups which were location-based provided more relevant information.

Usually the ISSM participants join WhatsApp groups after they meet with more Saudi students or other similar ethnic groups in the USA. Some ISSM participants noted that they need to use their real names to join these groups, and sometimes give a brief bio about themselves. While this might add more value to the credibility of the exchanged information, it could be a barrier to joining these groups. By disclosing personal information, the ISSM participants felt they might be judged by the type of the questions they may ask. IP2 shared related to this concern:

I heard that there is WhatsApp groups which have many women scholars in the USA and other countries. I asked one of my friends to ask something for me in one of these groups. I did not join that group myself because there were certain conditions to join and I did not feel comfortable to these conditions....The condition was that you should share your real name, where you study, and your scholarship sponsor. I do not like to join with my real name with people I do not know, it will have a negative impact on my questions if there is something that I wanted to ask generally and I do not want anyone to know who I am (IP2).

In addition to WhatsApp, the ISSM participants adopted other social media platforms such as Snapchat, Instagram, Twitter, and Facebook. Each platform had served its purpose, Snapchat for family and friends, Twitter for news, and Instagram for exploring several topics. One main aspect among these platforms, that the ISSM participants did not share their personal photos publicly and in most of these platforms their accounts remained private.

When seeking information, the ISSM participants became more expert in finding information and evaluating information based on its sources. Public libraries were also among the new concepts and sources which the ISSM participants used with their children during this step. They wished if they could transfer the concept of public libraries and its services to Saudi Arabia.

Reflecting on how information sources and ways to get information changed, IP11 shared: “In the beginning [while in Saudi Arabia] I used forums, now we have social media. Before I had to use the computer to access information, now by the phone in my hand I can find any information” (IP11). The following section will present more of the reflections and lessons learned by the ISSM participants under step 5.

Table 17 Shows ISSMs' information practices and experiences during the TMM step 4

Information seeking behavior	<ul style="list-style-type: none"> - Advanced information searching skills because of language improvement and academic learning - Developed the ability to evaluate information based on its source - Learned about libraries
Information sources	<ul style="list-style-type: none"> - Expanded information sources - Learned about the value of online reviews
Social media	<ul style="list-style-type: none"> - WhatsApp groups: location-based, gender segregated, need to know about their existence, need to know a member to join a group, fear of being judged by the type of questions asked - Used different social media platforms, still privacy preferences remained the same
Personality changes and development	<ul style="list-style-type: none"> - Became more independent, more accepting of other cultures, more patient and compassionate with their children, adopted new ways of raising their children - Children exposed to American education, developed better soft skills
Feelings	<ul style="list-style-type: none"> - Social isolation, stress, depression

7.4 TMM step 5: Social imaginary of the academic journey is re-imagined

According to Allard and Caidi (2018), in this step the participants shared their migration stories, experiences, advice, and lessons they learned with potential newcomers who were intending to immigrate to Winnipeg.

Similarly, in this step ISSMs reflected on things they wished they knew before coming to the USA as it would have saved their time. In addition, they mentioned the things they *wished* existed as these could have provided more support to them during their academic journey in the USA. Accordingly, they shared their advice with potential student-mothers who intend to study abroad. The following sections will shed light on these findings in further details and it is organized into four sections. First, if existed would provide more support during the academic journey section. Then, lessons learned, and advice for student-mothers planning to study abroad sections. Lastly, information practices during TMM step 5 section.

7.4.1 Wished if it was available

7.4.1.1 Extended family support

I asked the ISSM participants about things they wished were available to support them more during their academic journey. Many mothers emphasized the important role of family support including their husbands and their extended family members in Saudi Arabia. While many of the ISSM participants in this sample had their husbands residing with them in the USA during their studies, few of them did not have their husband with them throughout the time of their residence in the USA. Among these mothers was IP2, who is a mother of four children. She always had been cautious about living in the USA without her husband as it will increase her responsibilities which were already too much when he accompanied her. At certain times, her husband had to go back to Saudi Arabia for his job. She shared the following:

For me it is extremely important that I have someone with me to support me either my husband, my brother, my mother, or my father. I cannot handle everything: groceries, taking my children to school, cooking, and studying. The most tiring thing for me is that my husband had to go back and forth between the USA and Saudi Arabia because of his job. When he is with me in the USA, it counted for him as an excused leave from his job, but this leave does not count toward his retirement time in his job. For me, this excused leave policy is a barrier, not everyone agrees to leave his job to come with his wife doing nothing but waiting for his wife to continue her studies and not have this time counted toward his retirement years. I wish if they reconsider the leave policy for scholar's dependent (IP2).

In this previous quote, IP2 emphasized the importance of her husband's support. Support from extended family members back in Saudi Arabia was also emphasized by many other ISSM participants. For instance, both IP11 and IP6 wished that their families resided next to them in the USA to provide emotional support for them or help with their children.

7.4.1.2 More financial support

Another aspect of desired support the ISSM participants emphasized was the need for more financial support to cover the high expenses of daycare. Although all the ISSM participants in the interview had scholarships which provided financial support, apparently it was not enough to cover daycare costs. For student-mothers, providing care for their children is essential and many mothers in this study had the concern of finding good and affordable daycare. Therefore, many of the ISSM participants expressed a need for more financial support by their scholarship sponsor to cover daycare fees. While some jobs might be available for international students, these jobs would take from the time of the scholarship period for ISSMs and add to the many responsibilities ISSMs already had. One of the mothers shared: "Daycare is expensive and this takes a toll on the parents. Jobs are not available for international students and if they are, they would take time from the scholarship period and delay graduation" (IP1). As shared by IP1 in this quote, daycare is important for ISSMs, yet they are beyond their financial budget, especially with the limited job options for international students. While many of ISSMs sampled in the interview had their

husbands residing with them in the USA, their husbands were students themselves. Further, as introduced in chapter 2, mothers are usually the main childcare giver and household maker in the Saudi culture (Pharaon, 2004).

7.4.2 Lessons Learned

The ISSM participants highlighted some of the things they wished they knew earlier either related to their academic life or daily life. Among the things related to academic lives, they wished they knew earlier about the process to get academic acceptance, the basics of doing scientific research, financial policies, and had better English skills upon early arrival to the USA. For instance, IP3 shared:

I got accepted in two universities. I went to first university but then moved to the second one. I wished I knew about the financial obligations involved. The first university sent me bills. I was surprised that I had to cancel my registration and drop off courses in the first university and that if I did not, I will have to pay. (IP3)

Regarding daily life, the ISSM participants wished they knew earlier how to drive (women were not allowed to drive in Saudi Arabia), how to have a good balance between work and life, knew about children's activities in their cities, and expanding social connections to include American friends as well. Among those mothers is IP9 who was interested in finding activities for her children in her city. Later, accidentally she learned about activities for children such as public libraries activities and YMCA a gym that offered short time care for children during use of the gym. She shared the following:

I had a difficulty finding the activities happening in my city. I wanted to take my children and go to activities. I did not know where the activities were happening. One and half years ago, and I am telling many of my friends because I know they did not know about it or because they do not have Facebook account, I learned about activities, which is a tab in Facebook. From that link you can enter any city name and it show you all the activities in the city. This was like an opening gate for me. (IP9)

As the previous quotes showed, the ISSM participants learned from their own experiences. In the following section, they share other defining moments and advice they would share with prospective student-mothers.

7.4.3 Advice for student-mothers planning to study abroad

The ISSM participants shared some advice with the prospective student-mothers. A common theme among several recommendations was related to managing both roles of being a mother and a student. IP3, advised mothers not to work from home as it can be difficult on the emotional well-being for both the mother and the children. She noted:

Work must be during certain times and these times better to be outside home. I tried to have certain hours to work from my home, it was fine, but it was not comfortable for me and made me more stressed because when you are home you feel responsible about each corner in it. Anything missing you do not like it and at the same time you feel it is work time. Even for your children, working from home impacts them, as they see you sitting in front of them, but you tell them to go because you are busy. It is better when you work outside your home because you isolate yourself from the home environment and focus more on your academic work, and when you finish you can go back home and your time will be children and home time. (IP3)

IP10 thought of studying while having children as a very difficult experience, she shared: “If you plan to study, do not plan to have children. It is difficult and will be as barrier between you and your study. It is not as easy as when you are alone without children.” (IP10). Though this advice could only be relevant for someone who do not have children yet.

For the mothers who already have children, relevant recommendations were, to be strong, patient, know your stamina and the goals you came for as shared by IP2 and IP8:

Life is not rosy. The reality is totally different from what we heard from previous scholars or saw on social media. You will be responsible about everything. If you were not strong, your children will be impacted by your bad feelings. (IP2)

Being patient and prepared with all the information needed related to children before traveling to a new country was highlighted by IP8 as she shared:

My advice is to be patient specially in the first period. If you are a mother coming from Saudi Arabia with children, the children will see a different society, relationships and language. The children will be impacted mentally more than their mothers. As a mother, you need to be patient, readjust to the new situation, read, and search. When you plan to travel from your home country to another one and you have children, do not travel unless you know everything (IP8)

7.4.4 Information practices during TMM step 5

This section will recap and further expand on the information practices imbedded in this step as the ISSM participants shared their experiences with future student-mothers (see Table 18). The ISSM participants reflected on some of the challenges they had when they searched for information. Deciding on a good daycare for instance, was among the main information needs for many mothers. One mother, IP4, suggested if there could be a recommended daycare list in each city on the Saudi Ministry of Education website. IP4 shared this suggestion based on her experience of recommended universities provided on the Ministry website. In addition to daycare recommendation, other ISSM participants, valued the benefit of online reviews which they learned about and made use of when they came to the USA. They suggested if there would be further reviews for medical doctors as it would help them make better decisions when choosing doctors. While some reviews for health providers were available in the USA, they were not enough.

Another participant, IP9, recommended that Saudi students clubs in each city provide more location-based information that cover basic information needs ranging from airport pick up to fun activities for children in that city. She remembered that she did not know about Saudi student clubs until she came to the USA. Based on her observation, IP9 reported that while some Saudi students' clubs provided some information, this information is not always visible online and not many

newcomers knew about it. Having this information more visible in one main place especially for the newcomers who are still establishing their social connections would be helpful. In addition to the information suggested to be provided online by Saudi students' clubs, IP9 suggested if the international offices in universities provide information related to daily life for newcomers through a phone application as it would be easier to access by newcomers.

Social media platforms are essential channels of communication for ISSMs in this study, particularly WhatsApp groups. Some ISSM participants developed more empathy to help others by answering their questions on these groups. Because the WhatsApp tool was reported by many of the ISSM participants as an important information channel for many life aspects, IP3 suggested different tabs to help categorize the groups into personal and business might be an added benefit for those who use this platform.

When IP8 first came to the USA, social media platforms were not as popular or adopted by many Saudis as they became in the recent years. She highly appreciated the benefits of social media as it allows her to visit places online before visiting them physically and stayed in touch with her family back in Saudi Arabia. Consequently, she encouraged many newcomers to take advantage of this available information source to get better understanding of the place they would travel to.

Table 18 Shows ISSMs' recommendations for newcomers in the TMM step 5

Information to be available	<ul style="list-style-type: none"> - Online recommended list for daycare in the USA - Having more information online related to children activities and social events on Saudi clubs' associations in the USA - Online reviews for medical doctors in the USA
Technology suggestions	<ul style="list-style-type: none"> - Have categories/tabs in WhatsApp to distinguish between formal and non-formal groups - Phone applications by international offices/ centers in American institutions to help newcomers learn more about daily needs
Suggestions for newcomers	<ul style="list-style-type: none"> - Prospective students should take advantage of social media, as they can learn about any place through social media platforms - To be strong, patient, know your stamina and the goals you came for
Further support	<ul style="list-style-type: none"> - Support by extended family members - More financial support to cover the high cost of daycare

7.5 Discussion

7.5.1 Increased understanding of the information landscape in the host country over time

After arriving in the USA, the ISSM participants' understanding of the information landscape in the USA increased as they encountered more information and started to build their social network connections in the USA. ISSMs encountered information accidentally and directly. Examples of accidental encountering of information included learning about public library services for children the glass door of the library and learning about the rental apartment complex while walking around. The ISSM participants in both examples encountered information accidentally (Erdelez, 1997) and by walking around/wandering (Lingel, 2011) in the new host country. This information seeking behavior of wandering is similar to the behavior immigrants perform after their early arrival to the host country in Allard and Caidi (2018) as well as the international students in Oh et al. (2014). This accidental information encountering exposed immigrants, international

students, and ISSMs in this study, to new potential information sources in the host country and helped them learn more about their host countries.

In addition to the accidental encountering of information, the ISSM participants engaged in direct information seeking. Examples from the interviews include visiting the physical location of a university campus or a new city where ISSM participants wanted to move. Visiting the physical location helped ISSMs make sense of the information they had about these places and informed their decisions. These experiences of ISSMs are similar to pilgrims' experiences when they traveled to Hajj and encountered Hajj-based information landscape which helped them make sense of the information and the advice they received before undertaking their Hajj (Caidi, 2019). Given the importance of experiencing the physical space, and echoing the recommendation made by Oh, Butler, and Jean (2018), it is important to design applications which enable virtual wandering. The importance of visiting physical space could be something that ISSMs is used to as information seeking behavior when they were still in Saudi Arabia due to limited online content related to daily life in Saudi Arabia.

7.5.2 ISSMs as the main holder of the scholarship and academic success

As student-mothers, the ISSM mentioned the challenge of needing daycare despite husbands also residing in the host country and the high cost of daycare in the host country. Similar findings were confirmed previously by Alhajjuj (2016). Alhajjuj (2016) studied the ways Saudi female doctoral students in the USA manage their motherhood and academic roles. She concluded that the student-mothers in her sample were successful in managing their motherhood and academic life. It is worth noting that all the mothers in Alhajjuj's (2016) sample were the main holder of the scholarship. This could be further interpreted that being successful in their academic studies was the only option they had to keep their scholarships. In contrast, the sample in this study

included ISSMs who were the main holders of the scholarship as well as dependents of scholarship recipients. One of the ISSM participants, whose husband was the scholarship recipient, eventually dropped out of school. This finding of not being successful in their academic studies compared to Alhajjuj's (2016) finding emphasized the difference between being the main scholarship holder versus being a scholars' dependent. The results of this study indicate that whether ISSMs were the main holder of the scholarship or scholars' dependents, ISSM perceived pressure to succeed. Accordingly, more support is needed for ISSMs whether they were the main holder of the scholarship or scholar's dependent, and for other student-mothers in general.

7.5.3 Feelings and help-seeking behavior

While the ISSM participants were in the USA, they experienced a wide range of feelings. Upon their early arrival, they felt excited then they experienced homesickness. They eventually overcame their homesickness as they adjusted to living in the USA. Later, while in the USA, some of the ISSM participants experienced stress, anxiety, social isolation, and depression. Despite experiencing levels of high levels of stress, some ISSMs were hesitant to seek professional help. In this sample, main reasons indicated by ISSMs were having limited time, prioritizing their family needs over their needs, and ignoring such feelings as they perceived them as not urgent or serious enough to seek professional help. This behavior of not seeking professional help regarding mental health for Saudi international students have been noted based the stigma surrounding mental health matters in Saudi culture (Lefdahl-Davis & Perrone-McGovern, 2015), lack of awareness, time limitation, and the perceived usefulness of available counseling resources (Alhajjuj, 2016). The results from this study suggest that the stresses of being a foreigner, coupled with the stresses of motherhood, and the pressure to succeed as a student might be considerable for ISSMs. To this end, international student-mothers from Saudi Arabia should be informed and encouraged to use

the available mental health resources for them as students, and possibly covered by their scholarship's medical insurance. In Alhajjuj's (2016) study, one mother shared her experience with the counseling center in her institution where the mother noted that the counseling center provided help with her academic matters but did not offer much support for her problems related to motherhood. Accordingly, it is also important for counseling centers in American academic institutions to consider providing help to the whole human being who is both a mother and a student. Further, academic institutions should understand the idea that women who are mothers might need support beyond that of the average female student or the average female international student.

7.5.4 Public libraries

Many of the ISSM participants reported on their awareness and use of the public libraries in the USA. They used it as a place to study and as a fun place for their children to learn and play. Still, one of the ISSM participants, who had been in the USA for two years, indicated that she has not been to any public library in the USA. This finding implies that learning about public libraries by ISSMs came later in their academic journey. This lack of awareness of public libraries and their services could be as there are few public libraries in Saudi Arabia, and for these few ones, they offer fewer social services and events compared to public libraries in the USA.

In the literature of information science, usually public libraries use is associated with the immigrants' groups, while academic libraries use is associated with international students. Public libraries provide immigrants with the information they need during their settlement, as well as, they provide a place to meet, and a place where the cultures of the country of the origin and the host country can be bridged (Audunson, Essmat, & Aabø, 2011). In other words, this finding shows that ISSM use of public libraries is similar to both immigrants and international students. Given

the important role and services provided by public libraries to immigrants' groups, public libraries could also provide similar benefits to other types of newcomers such as international students in general and international student-mothers in particular. Accordingly, academic institutions' officials should inform and encourage international students, particularly mothers, about public libraries just as they inform international students about academic libraries within their institution. Exploring the awareness and uses of public libraries by the population of Saudi student-mothers has not been noted previously in the literature.

7.5.5 Academic journey's impact on ISSMs and their children

While being in the USA, ISSM participants had personal development such as being stronger, more independent, and more patient. These personality changes are similar to the changes Saudi female students developed during their studies in Canada (Ahmed, 2016). The journey further impacted ISSMs' children in many ways. Indeed, ISSMs were concerned, and in some cases felt guilty, about their children Arabic fluency. This concern is similar to the concern that mothers in Alhajjaj (2016) had regarding teaching their children Arabic. Concerns about teaching children the home country language was not among the main needs noted in the studies related to international students' information needs (e.g. Binsahl et al., 2015b; Oh et al., 2014; Sin & Kim, 2013), as most of these studies did not mainly focused on international students who were parents as well.

Another impact ISSMs had during their academic journey was related to their information seeking skills. Yoon and Chung (2017) noted that international students after settling in the USA became more satisfied with search experiences and online results and more confident with their information seeking compared to their pre-arrival. Similarly, ISSMs became advanced information seekers while in the USA and developed their abilities to evaluate information based on its source.

ISSMs became better information seekers after being in the USA because of their language and search skills improvement as well as their academic learning. Accordingly, it is important for international students to improve their language prior to leaving their home countries. Further, for Saudi international students and ISSMs, scholarship program's officials should consider including training courses related to online search and sources evaluation for students and student-mothers as part of their preparation before traveling overseas. Increasing language proficiency would help not only be more successful in the classroom but also increase their ability to find the information they need for themselves and their children to quickly adjust in their host environment.

7.6 Summary

The second part of the interviews' findings was presented and discussed in this chapter. The findings were matched to the three later steps of TMM framework. In the third step, the ISSM participants explored more of the USA information landscape, and shared ways which the information helped them adjust. In the fourth step of TMM, the ISSM participants reimagined the USA and Saudi Arabia. These reconceptualized imageries developed as they spent more time in the USA and engaged in longer more varied experiences. The fifth step of TMM, presented the thoughts and the lessons the ISSM participants learned and wanted to share with perspective student-mothers. The next chapter will present the last part of the interviews' findings related to preparing and perception about go back to Saudi Arabia as the journey finish.

Chapter 8 The Interview Study: The End of the Academic Journey - Going Back to Saudi Arabia

8.1 Introduction

Chapters 6 and 7 provided the findings from the interviews through the five steps of Allard's (2015), and Allard and Caidi's (2018) Translocal Meaning Making (TMM) model. The findings presented in this chapter introduce a new, sixth step to the TMM. The sixth step is essential to capture the time and perception of international students who at the outset knew that they would be eventually returning to their country of origin. Whereas the TMM focus' on the perception of immigrants who plan to reside and establish a new life in their host country, this research focuses on a temporary group of international students (ISSMs) who at the outset of their journey had always planned on going back to Saudi Arabia. The chapter will begin with an overview of the new (sixth) step of TMM (reimagining living in Saudi Arabia). Next the findings will be presented followed by the discussion and summary.

8.2 Extending the TMM framework to a sixth step

The original TMM framework by Allard (2015), and Allard and Caidi (2018) consists of five steps that had different levels of awareness and different information practices in the life of immigrants in their study. Thus, the TMM framework provided a robust lens to explore the lives and experiences of ISSMs in this study. Unlike traditional immigrants who migrate to a new country, usually international students from Saudi Arabia plan to go back to Saudi Arabia upon completion of their academic journey (Binsahl et al., 2015b; Hall, 2013). Results from both the survey and the interview confirm this return migration phenomenon among this group of ISSMs. Thus, a sixth step is needed to capture the phase of going back to Saudi Arabia. This extended step

aims to capture ISSMs' perceptions and the information practices situated during the time of preparing to go back to Saudi Arabia.

In the original TMM step 4 which focused on the aspect of reimagining the host and the country of origin, this step happened while the new immigrants were settling into the host country with no intention to go back to their original country. In contrast, this new sixth step, covers the perception of ISSMs as they plan to go back to Saudi Arabia. The knowledge that for this group their stay is temporary, along with their anticipation of return set ISSMs' immigration experience apart from traditional immigrants and set this step apart from the TMM framework. The next section will present the sixth step in more details.

8.3 TMM step 6: Reimagine living in Saudi Arabia

Because ISSMs are originally from Saudi Arabia, it is not a new country for them to imagine as when they first came to the USA. Still, they lived for several years in the USA away from Saudi Arabia. During that time, things have changed in Saudi Arabia compared to when ISSMs first left it. Changes in Saudi Arabia included opening new businesses such as restaurants and international schools, as well as many policy changes especially for women. Examples of these policy changes included allowing women to drive, increasing women participation in the workforce by providing equal job opportunities and leadership positions, allowing men and women to sit together to watch music concerts and sport events (Aldhahri, 2019). All these policy changes are new to the Saudi Arabian history. These rapid changes had some impact on how ISSMs reimagined their life would be once they return to Saudi Arabia after living in the USA for quite a time. These changes were reflected in their concerns, feelings, adjustment strategies, and their information practices. This chapter is organized into five sections. First, feelings about going back to Saudi Arabia. Second, concerns related to preparation, and third, adjustment and coping plans.

Fourth, being in the USA is temporary section. Lastly is the section of information practices situated during TMM step 6.

8.3.1 Feelings about going back to Saudi Arabia

The ISSM participants shared their feelings about the idea of going back to Saudi Arabia. IP8 for instance shared: “It is not that I am sad that we will go back to Saudi Arabia, no, it is because I will miss living in the USA” (IP8). Another mother added:

My feelings are mixed between happiness and worries at the same time, because you will go there [to Saudi Arabia] it will be the same idea when you first came [to the USA], a new life and you do not know what will you face. When I am returning, the same idea, I am worried about the future and jobs, many things changed there [in Saudi Arabia], I will re-adjust just like when we first came to the USA (IP4).

Both of these ISSM participants felt happy but had some concerns about missing the life in the USA and re-adjusting to the living in Saudi Arabia. Other ISSM participants shared their feelings with regards to going back for themselves and their family. IP1 and IP9 shared respectively:

We all are looking forward to that moment. I cannot wait to go back to my family and so does my husband, we both want to go back to our jobs. My daughter spent time with my family when they came to visit, and she would be so happy to be surrounded by them again. It is going to be great. (IP1)

My children are excited [to go back]. I always tell them we are here [in the USA] because I am studying. They ask me a lot about where their father is, why we are here [in the USA] without him, I tell them we are here for study, as soon as I finish we will go back....the idea of family life is very attractive for them as they will be united with their father, have our home, and visit their grandparents and cousins (IP9)

Both ISSM participants and their family felt happy and excited about going back to Saudi Arabia as they will be getting back to their jobs and be united with their families. For IP9 it means that she will be united with her husband as well as her extended family in Saudi Arabia. That is as her husband came with her to the USA initially, but then he had to leave to Saudi Arabia because of

his job obligation. While usually Saudi female scholars need to have a male relative staying with them during their entire study in the USA, this is not always applicable for all female scholars like the case of IP9.

8.3.2 Concerns related to preparation

Beside the mixed feelings the ISSM participants shared, they had some concerns regarding their return. Mainly they were concerned about finding schools for their children, the differences in the education systems between the USA and Saudi Arabia, and children's Arabic fluency. IP5 shared in this regard,

The way of education is completely different between Saudi Arabia and the USA. How will the differences in the education system be, how will the exams be, what type of schools can you choose if the children have difficulties in Arabic? There are international schools in Saudi Arabia that teach in English, but even these schools have many differences, the American curriculum is different than the British curriculum, on which basis should you choose, you need to think about it (IP5).

Mothers had the concern of Arabic fluency for their children. Thus, enrolling their children in international schools could be a first step to help their children bridge the language gap and adopt to the new education system, despite their high cost. Later, some ISSM participants speculated about their options in that they may transfer their children to private or public schools depending on their progress. IP8 shared about her child's adjustment:

If there are no international schools [in my city] I will consider private schools that emphasize English, until she adjusts to the situation. Maybe if she adjusts, she can transfer to a public school if she likes, this all depends on our budget and it requires more thoughts (IP8).

Even though international schools are expensive, it does not necessarily mean that their education level or quality is better than the ones in public schools in Saudi Arabia. Still, mothers considered enrolling their children in international schools as they at least teach in English. However, finding

detailed information, rating, or communicating with schools in Saudi Arabia while in the USA was not always easy. IP3 shared:

Recently, an international school opened in my home city. My plan is to enroll my children in that school despite its level. At least, you can manage as they teach the curriculum in English. We do not know if this school is good or not. We tried to contact them through WhatsApp and their website but there was no communication from their side (IP3).

Moreover, finding information online related to daycare and preschools in Saudi Arabia was also challenging. IP7 shared: “There are daycare accounts on Instagram, but I feel it is difficult and not easy like here [in the USA]” (IP7). Similarly, IP9 added related to preschools: “Until now, I could not find good websites for preschools that you can get information from” (IP9). The participants’ struggle to find information about Saudi Arabia while living in the USA indicate that they were planning to return home, but they were not expecting to pick up where they left off. Their perceptions of home revealed some anticipated challenges and adjustments. While some information existed online on some daycare’s websites or their social media accounts, they acknowledged that the available online information was not enough.

The challenge of finding information about childcare and education was not only related to the mothers of young children, it also included mothers with older children. IP2 had concerns about the preparation exams for university admission for her son as she shared:

I want to know information about universities for my oldest son. How the admission will be, the admission process, and the required exams. Until now I still do not know if he will take the preparation exams here or in Saudi Arabia (IP2)

Other topics that occupied the ISSM participants’ imaginations were related to housing and jobs. For the ISSM participants who had their own home in Saudi Arabia or were returning to their home city, housing was less of a concern. IP5 shared:

I am not concerned about housing in Saudi Arabia because you know the place and the environment. Here [in the USA] the concerns were that you do not know if the place is close or far from the university...We already lived the experience of house searching in Saudi Arabia so, we know the details from when we first searched for a house, we know the good neighborhoods and the not good neighborhoods from our experience with the place (IP5).

For the ISSM participants who were returning to a new city in Saudi Arabia or planning to rent, they needed information about housing. The main information sources that they said they planned to use was their personal connections in Saudi Arabia or their Saudi friends in the USA. Google was also among the sources they used to find information about housing in Saudi Arabia, though the search results were not always satisfying as shared by IP4: “It is not like here in the USA when you search about housing you find many options, for Saudi Arabia when I searched only few options came back” (IP4). Similarly, IP7 added:

I am thinking about housing, how to choose a house, and how the process will be, I do not know. I searched on Google, but it is not like here [in the USA] where they show everything. No results came back when I searched for houses [in my husband’s city in Saudi Arabia], how will the living be like there, my husband and I grew up in different cities. This is a bit difficult (IP7).

IP7 was not returning to her home city but rather, she was returning to her husband’s home city. Thus, in addition to the lack of available information online, IP7 also lacked the familiarity with her husband’s city. As this quote showed, it is not easy to find information about housing in Saudi Arabia from Google due to the lack of online content related to Saudi Arabia. Moreover, searching for information on a place that is unfamiliar to the information seeker increases their level of frustration.

Other information needs related to leaving the USA included lease ending process, furniture distribution, scholarship ending process, children school reports for enrolling in Saudi Arabia, and package shipment to Saudi Arabia. These information needs were important for the

ISSM participants, but they felt more relaxed because they had developed a familiarity with certain information sources needed for this type of information. Mainly they relied on their social networks that included friends and previous scholars who went back before them to Saudi Arabia. IP6 shared: “On the WhatsApp groups in my area, many were coming and leaving the USA and they exchanged information, I feel that I have the information about how I will do it and what I will do”. IP6 found the information exchanged in the WhatsApp groups in her area very useful and she felt prepared with the information she would need when she prepares to go leave the USA and go back to Saudi Arabia.

In anticipation of their return to Saudi Arabia, they also considered some cultural adjustment strategies such as their plans to enroll their children in international schools. Much of the adjustments focus on their concern for children’s adjustment and less so on their own adjustment. More adjustment and coping plans will be presented in the following section.

8.3.3 Adjustment and coping plans

The previous section touched on some of the adjustment strategies ISSMs planned for their children upon returning to Saudi Arabia. Enrolling their children in international schools is an important part of ISSMs’ adjustment plan. Mainly as they still want their children to retain the English skills which they learned from having lived in the USA. Other habits mothers wanted to maintain included being active, having a healthy diet, and enjoying children’s activities. IP6 shared:

I will search for a school for my daughter, so she does not lose the English she learned, and I want to keep the routine and enroll her in sports. Here [in the USA] I care that she eats healthy food and I want her to maintain this when she goes back (IP6).

Similarly, IP3 shared her plans to search for activities for her children once they go back to Saudi Arabia as well as helping them with mastering Arabic to help them adjust faster.

We are planning to compensate them for the activities they used to. The child who grew in the USA is grown on happiness and activities, we will miss these things. The only activity is to gather with the family especially in my city, a nice and a small city but has no activities. If there are libraries, we want to visit them even if we had to travel to them, or simple things like summer trips or horse ridings, whatever available in the environment to help the children adjust. We are also planning to intensify Arabic learning for them so they can adjust faster (IP3).

Although ISSMs were returning to their home country, they shared some of their concerns and plans to readjust for themselves after living in the USA for several years: “you worry about many things, the change, the life you used to, and schools. It was the idea of daycare when we came, now it is the idea of schools” (IP5). Further, IP11 added related to getting used to more social gathering compared to her life in the USA:

I am used to a certain routine and certain life, here [in the USA] you used to quietness not like in Saudi Arabia where there are many social gathering, but I prepare myself that I will be going back so I do not get used to it and then feel tired when I return (IP11).

In addition to adjusting to a new routine, getting familiar with the new changes that happened in Saudi Arabia was mentioned by IP9 as she shared:

The idea that I am returning to Saudi Arabia, there are many things that changed like driving, there are many things women can do now which they could not do before. Now you can do everything by yourself and you do not need anyone. I feel that I am going back but I am not sure what is yes and what is no. I feel that I am going back with difficulty. From that perspective, I have to readjust to Saudi Arabia all over again. I think my family and friends will help me adjust because they lived this before me (IP9).

For the ISSM participants who did not have a job yet in Saudi Arabia, finding a job in Saudi Arabia was among their main goals upon returning. IP10 shared: “My only plan is to go back to Saudi Arabia and search for jobs, this is my ambition in life and God willing I will reach it, this is the first goal in my mind” (IP10)

On the other hand, the ISSM participants who were returning to their jobs had some questions and thoughts regarding their return to their jobs after being away for several years in the USA. IP8 for instance found that using Blackboard during her studies in the USA as a medium between students and their professors to be very helpful. Accordingly, she wanted to recommend adopting a similar system in her job as a university faculty upon her return. Though, IP8 noted that it might be already used in her job, but she did not know for sure as when she left, they did not have such a system.

Similarly, IP9 intends to offer recommendations to administrators in her job back in Saudi Arabia. Her recommendation was to have brief training courses or workshops for faculty in universities to stay up to date with the new technologies and teaching methods. She thought these training courses would help explain what is expected from her as a faculty upon returning, she shared:

I feel generally that as faculty we need, and I see that in the professors in the university here [in the USA] they continue to take training courses about how to teach, the new things in teaching, and new teaching strategies and methods. All these I did not learn about when I was there [back in my job] so I think it is important that when we come back that they provide me with their expectations from me, my role and the things I have control over as a faculty. Honestly, we miss these things (IP9).

Her recommendation came based on her observation during her studies for the faculty in her university and based on some of the stories she heard from her friends who went back. IP9 shared one of these stories:

I have colleagues who were hired as faculty and immediately went on their scholarships. Upon their return, it was like if they were returning to the unknown, they were very worried. One of them when she first came back, in her job they did not assign her classes to teach rather, they assigned her to five or six administrative committees. In the first two weeks she wanted to cry as she did not understand anything of what they were talking about eventually, she applied for non-paid maternity leave because she could not handle everything, no one gave her the time to explain to her what to do or her role. She was worried about teaching as she did not

teach before, and when she came back, and they assigned her everything she could not handle it and had to take that semester off (IP9).

This quote showed that even with ISSMs' preparation and plans, they are concerned about a smooth transition not only back "home" but also the transition back into what is supposed to be a familiar work environment.

As presented in this section, ISSMs shared their excitement about their plans to return and had several ideas and plans for readjustments for themselves and their children. Knowing that their stay in the USA is temporary, ISSMs shared how this idea had impacted their daily life and settlement in the USA. The following sections will present these impacts in further details.

8.3.4 Being in the USA is temporary

Unlike immigrants' population and some international students' groups, ISSMs always planned on returning to their home country after finishing their studies. For ISSMs returning home idea impacted their information practices, feelings and perceptions about their life in the USA as they perceived the USA as a temporary home. Accordingly, ISSMs kept a strong tie to their permanent home country as they knew that eventually they will return to it. The following two sections will present more details in this regard.

8.3.4.1 Maintain cultural identities and traditions

The ISSM participants kept a strong tie to their home country by maintaining annual visits to Saudi Arabia during academic breaks. Moreover, they kept cultural identities active especially for their children. Because they knew their stay in the USA was temporary, they were keen to improve their children's Arabic fluency and maintain cultural traditions. Many of the ISSM participants enrolled their children in Sunday schools which offered Arabic and Islamic lessons or ISSMs provided Arabic/Islamic tutors for their children if the children were not attending Sunday schools. Further, the ISSM participants emphasized the important of Arabic language by speaking

with their children Arabic at home. IP1 for instance shared: “We had an agreement: her father speak in Arabic to her and I speak in English to her. We taught her Azkar [Islamic prayers] and she prays with us” (IP1). Though, maintaining both languages was challenging for many children and mothers, IP5 shared:

Related to language, it is one of the most difficult challenges they face, because no matter how you try to speak Arabic with them when the whole community around them does not speak Arabic it becomes difficult for them to pronounce the Arabic languageI tried books [for Arabic learning], maybe it is fine but it requires that I take from my time to sit with them, teach them, and read with them. With the pressure from my study I do not have much time to sit to teach them Arabic. For me, improving their Arabic language is one of the difficulties that I still have (IP5).

In addition to speaking Arabic at home and Sunday schools, other mothers such as IP6 and IP2 enrolled their children in a Saudi Arabian international school in the USA instead of public schools. As this school offers curriculum similar to the one taught in schools in Saudi Arabia, hoping to ease the education transition for their children upon returning, IP2 shared:

I started from now, I still have two years before returning...My children were in public American schools before, I moved to another state which has a Saudi international school for my children so they can have an idea about the curriculums in Saudi Arabia, Arabic, and the environment of Saudi students in general...I consider this a big sacrifice and it had a negative impact on my study as this place is far from my university (IP2).

Maintaining Arabic language skills and cultural traditions were among the additional challenges that ISSMs had to negotiate with their children, both mother and child are navigating to the two cultures temporarily. IP6 and IP4 shared,

I enrolled my daughter in a public school, I felt not comfortable. They celebrate all holidays, Christmas, and Valentine. They are young children and they talk about who marries who and who loves who. It was difficult for me to explain to her that this is wrong and at the same time I do not want to tell her that everything is forbidden. I do not want her to feel anxious by me, I always try to simplify the information for her. It is a struggle (IP6).

For Christmas, my son said Santa will not be coming because we do not have a Christmas tree. I told him we cannot do this, he asked why I am not like my friends, so I explained to him that we are different...we do things they do not do like Ramadan, he loves Ramadan, so he got convinced (IP4).

Mothers explained the different cultural concepts to their children. IP6 wanted her child to accept other cultural traditions but at the same time, she did not want her child to celebrate these events herself. IP4, gave her son the example of Ramadan celebration. As Muslims they celebrated Ramadan, while his friends did not celebrate Ramadan, rather they celebrated Christmas.

8.3.4.2 Feelings of not being completely settled while in the USA

The status of being a temporary resident in the USA also impacted the ISSM participants' feelings of settlement and emotions. For instance, IP11 shared: "There is stuff that I want to buy, but then I tell myself that I am staying here [in the USA] only for a temporary time why to buy very expensive stuff, such as expensive houses or furniture" (IP11). Further IP7 added related to her feelings: "You feel that there is no feeling of settlement" (IP7). Both IP11 and IP7 had the feeling of not being completely settled in the USA as in their minds they knew they would be returning to Saudi Arabia eventually.

Another mother, IP9, shared her desire to go back to Saudi Arabia to feel settled as she shared: "In this last year, suddenly I had a feeling that what I am living now is not stability, the real stability is when you go back and be with your husband and get back to the job you left" (IP9). Unlike other migrants who come to the USA and plan to stay, IP9 did not feel completely settled in the USA. In the back of her mind she always knew that her stay was temporary. For ISSMs their perception of stability is based on their family and jobs are back in Saudi Arabia. In the next section, information practice situated during the preparation phase will be further presented.

8.3.5 Information practices situated during TMM step 6

In this section, information practices situated during the preparation to go back to Saudi Arabia will be revisited and further extended (see Table 19). The ISSM participants wanted to find information related their daily life when they go back. Mainly they wanted to find information related to schools, daycare, housing, and jobs. Further, they wanted to find information related to their professional needs such as finding jobs or having updated information related to their jobs. Overall, their information needs could be less compared to when they first came to the USA as they were going back to a culture they knew. IP3 shared: “When I return to Saudi Arabia, I will need a small amount of information because I am returning to an environment that I already know, it is not like when you are going from your country to another country” (IP3). Moreover, IP6 added:

The country is not strange for me....I have a house and a car so when I go in the same community I start to search for things myself. I wish I could find a list of the schools which teach English whether they are public or international schools or how the rating will be. I wish I can do a search for this stuff before I go [to Saudi Arabia] (IP6).

Accessing information online while preparing to go back to Saudi Arabia was not easy. While some information was available online such as schools’ websites or daycare accounts on social media, it was not satisfactory. IP2 shared:

Even if I wrote in Google about schools, yes, I know there is a school, but I do not know if its curriculum is good, if it follows the American or British curriculum, and the type of buildings. All these things either I see it on reality [in Saudi Arabia] or ask someone who study in that school (IP2).

At this stage of their academic journey, language and search skills were not the barrier for getting information related to living and surviving the Saudi Arabian context, the main barrier was the lack of adequate content online, IP1 shared:

I want to say that English content is more informative than Arabic. In Arabic content, we suffer from repeated online content articles or news on multiple sites. Governmental and educational sites still lack a lot of information you need so you talk to employees of that organization which take from their valuable time to answer a common question or concerns. Even though, a lot of these organizations moved to Twitter to communicate and answer people' questions, but it is not affective. Having all the answers in one place is better in the long run. I think it is our responsibility that we know the value of online rich content to replicate that in the Arab region, so we do not lose our identity and language (IP1).

As the online information was not adequate, the ISSM participants turned to other sources of information. They turned to their social connections to get updated information related to the Saudi Arabian context. Their social connections included family and friends back in Saudi Arabia or/and Saudi scholars and friends in the USA. Without adequate online sources, or gathering information from their social networks, ISSM are convinced that another way to get information was by visiting the place physically once they go back to Saudi Arabia.

While the ISSM participants were in the USA the information landscape in Saudi Arabia was continually changing as noted by many ISSM participants. IP6 shared these changes she noted during her periodic visits to Saudi Arabia: “When I go back for a vacation in Saudi Arabia, I feel that I am like pilgrims, I do not know anything. I do not know about malls or restaurants, I know nothing” (IP6). According to the experiences of IP6, many places changed in Saudi Arabia while she was away in the USA. Social media platforms were among the sources used by the ISSM participants to get updated information about Saudi Arabia. IP8 shared that she learned a lot about the new places in Saudi Arabia through the advertisements performed by the social media influencers she follows. When influencers provide their reviews for a restaurant or a store, ISSM receive updated information about their home county through social media influencers' reviews.

In addition to learn about the new places in Saudi Arabia from social media platforms, IP8 used social media to learn about information she needed when she prepares to leave the USA.

Closer to her return time, IP8 followed Saudi scholars on social media who had been in the USA for several years and were preparing to go back to Saudi Arabia at the time. IP8 took notes about what to do to plan her return to Saudi Arabia. Among the examples IP8 mentioned were buying a car from the USA and ship it to Saudi Arabia, and the papers and exams required for children to enroll them in schools in Saudi Arabia.

Despite the usefulness of this information, it is inadvertent, it is biased and not always reliable. That is as it depends on who you follow and the type of information they share. Further, it could be temporary information as in IP8's example where she learned this information through Snapchat, which is a temporary source of information as content disappears after a certain period.

Other behaviors the ISSM participants noted related to their use of social media were related to WhatsApp groups, social media platforms and topics. Some ISSM participants indicated that they intend to delete the groups related to scholars once they return, as the information exchanged might not be related to them anymore. Still other ISSM participants noted that they plan to stay members of scholars' groups even after they go back to Saudi Arabia.

Regarding the uses of certain social media platforms, IP5 for instance was not sure but indicated that she will use the platforms which will be mostly used by her family and friends at the time. Topics and interest also might change depending on the context of their life later as noted by IP11.

As presented in this section, finding the information part could be managed by the ISSM participants as they had some expectations about what they will face as shared by IP6:

For America I had no experience or anything I did not know what type of problems I will face as if I were entering a strange world, but in Saudi Arabia, I know the problems which I will face, they are expected and known, not like when I came to the USA, every moment something new comes up, you do not pay the rent on the fifth day, you pay a penalty (IP6)

Still the readjustment process remains the more concerning piece as they would readjust to a new routine, life, education system and possibly new social norms after being far from the home country several years.

Table 19 Shows ISSMs' information practices and experiences during TMM step 6

Information needs	<ul style="list-style-type: none"> - Information needs related to leaving the USA such as furniture distribution, scholarship ending process, and package shipment to Saudi Arabia - Information needs related to Saudi Arabia such as international schools, academic admission for older children, housing, and jobs
Information sources	<ul style="list-style-type: none"> - Online: search engines, social media platforms (WhatsApp groups and following social influencers on Snapchat), but mainly their co-nationals (Saudi friends in the USA) and Saudis in Saudi Arabia. - Offline: waiting to go back to Saudi Arabia to visit the physical places to get information
Social media uses	<ul style="list-style-type: none"> - Might move to other platforms depending on the usage of their friends and family in Saudi Arabia - Might leave social media groups related to scholars as information is not relevant anymore
Challenges	<ul style="list-style-type: none"> - Lack of adequate online information related to Saudi Arabia was a challenge such as having no websites for housing - Not many online reviews - No active interaction online between schools and ISSMs while in the USA - Learning information depends on who you follow on social media, which is a temporary, not a reliable, or archived source of information - Readjusting to a new routine, social norms, and policy changes in Saudi Arabia - Concerns about improving children Arabic language
Feelings	<ul style="list-style-type: none"> - Excited for their return home, sad to leave the USA, feeling of ultimate settlement in Saudi Arabia, some concerns about readjusting for themselves and their children

8.4 Discussion

This section will discuss the major findings presented in this chapter related to the sixth step of the TMM. The discussion sections include feelings and adjustment, accessing information related to Saudi Arabia, and lastly social media.

8.4.1 Feelings and adjustment

The ISSM participants shared their feelings, concerns, and adjustment plans in their anticipation of their return to Saudi Arabia. ISSMs were excited for their return as they would go back to their families and jobs. Still, ISSMs had some worries regarding their return and adjustment to their home country. Re-adjusting back to ones' home country is known as "reverse culture shock" (Gaw, 2000). According to Gaw (2000), reverse cultural shock is "the process of readjusting, re-aculturating, and re-assimilating into one's own home culture after living in a different culture for a significant period of time." From the interviews, some ISSMs anticipated their needs to re-adjust to a new routine from the ones they accustomed to during their studies in America.

While in this study ISSMs anticipated future reverse culture shock, the participants in Lefdahl-Davis and Perrone-McGovern (2015) already experienced reverse culture shock during their short visits to Saudi Arabia. A participant in their sample shared that she missed her ability to drive her car when she went back to Saudi Arabia (Lefdahl-Davis & Perrone-McGovern, 2015). Women were not allowed to drive cars in Saudi Arabia until policy changed in 2017 (Kennedy, 2017). Changing the policy on driving cars for women in Saudi Arabia is one example amongst other policy changes. Indeed, one of the ISSM participants shared her concerns about these rapid policy changes in Saudi Arabia while she was in the USA, as she was not sure anymore what is allowed/accepted and what is not. However, as many other ISSMs sampled in the interview, she

indicated her intention to rely on her family and friends to help her with her transition and understanding.

8.4.2 Accessing information related to Saudi Arabia while in the USA

ISSMs also shared their concerns regarding their children's adjustment upon their return to Saudi Arabia. They planned on enrolling their children in international schools while in Saudi Arabia to help minimize the educational and language differences their children would experience between the two countries. ISSMs sought information about international schools, daycare, preschools, and university admission in Saudi Arabia for their children. However, the information ISSMs obtained was not adequate. Schools and childcare were not the only challenging information to find, other information related to housing and jobs was also not easy to find/access while in the USA. This inadequate information was due to the limited online content related to Saudi Arabia. The lack of Arabic content related to Saudi Arabia is part of a bigger challenge related to the presence of online Arabic content in general. Arabic only contributes to 0.9% of the overall content on the Internet ("Usage statistics of content languages for websites", 2020). Consequently, for ISSMs to access information related to Saudi Arabia while they were still in America, they planned on either asking their personal connections or waiting until they returned to Saudi Arabia to find out for themselves.

If it was somewhat challenging for ISSMs to obtain such information, it could be even more challenging for information seekers who do not necessarily have the same culture or language and plan to visit or study in Saudi Arabia. It is important to make information available online about daily life in Saudi Arabia such as information about housing and schools. Further, if this information could be offered in other languages in addition to Arabic, it would minimize the

inequal access for information seekers who are not familiar with the Saudi Arabian information landscape or do not speak Arabic.

8.4.3 Social media

ISSMs used social media platforms as an information source as well as to stay connected to their family and friends. Social media platforms such as WhatsApp, Twitter, YouTube, and Snapchat were also used as sources of information by Saudi Female International Students (SFIS) in Binsahl et al. (2015b) as well. The same social media platforms were used by ISSMs in this sample, though, Snapchat and WhatsApp were noted as the most preferred platforms to use by ISSMs. Among other uses, ISSMs used Snapchat to learn about the new places and businesses created in Saudi Arabia while they were abroad. They learned this information through following influencers and the advertisements created by these influencers. These advertisements on Snapchat provided ISSMs with quick and updated information about their home country. Still, this way of obtaining information is accidental, temporary, and depends on who you follow on social media while also being unreliable and unarchivable. This implies a great need for other sustainable information channels other than random advertisements and following influencers on social media.

ISSMs' uses of WhatsApp increased while in the USA as compared to their pre-arrival to the USA levels of WhatsApp use. From not using WhatsApp at all or having limited use of WhatsApp before their arrival to the USA, to expanding their uses to include family and friends in Saudi Arabia and Saudi friends or other similar ethnic groups in the USA. During ISSMs' preparation to go back to Saudi Arabia, some of them anticipated that they would change their use of WhatsApp. They may leave the groups related to scholars as the information would be less relevant to them given that many of these groups were location based. This change in social media use is similar to the one noted in Abokhodair (2017). In her work, after returning to Saudi Arabia,

Saudi students closed, deactivated, used different accounts from the ones they used when they were overseers, created new accounts, or moved to other platforms (Abokhodair, 2017). Though in her work, these social media changes were not specific to WhatsApp and were motivated by personal privacy changes upon returning. While in this study, ISSMs' motivation to change their uses for WhatsApp groups was related to information relevancy. These WhatsApp groups were an important channel for information and emotional support for ISSMs during their studies. However, this support depends on the availability and knowledge of the groups' members. If previous scholars continue to leave these WhatsApp groups, then it will impact the quality and wealth of information among these groups. Accordingly, it is crucial to have another way to sustain this information in a centralized location beyond WhatsApp groups.

8.5 Summary

In this chapter, the last part of the interview findings was presented and discussed. The findings were presented under a new extended step of TMM. This step is mandatory as it captured the time, preparing and perception of going back to Saudi Arabia after the end of the academic journey for the ISSM participants. The next chapter will present further discussion thoughts for the both studies conducted in this dissertation.

Chapter 9 Implications and Conclusion

This dissertation research aimed to investigate the information practices of international student Saudi mothers (ISSMs) and their experiences during their academic journey in the USA. The data was collected through two phases, first an anonymous online survey and second one-on-one semi-structured interviews. The online survey aimed to provide an exploratory overview of ISSMs' information practices situated in the context of their daily life. Despite the relatively small population size, the survey received a considerable amount of responses. The survey's findings and subsequent discussion were detailed in chapter 5.

Building upon the findings from the online survey, the second phase of the study was conducted. The interview study was guided by the five steps of Translocal Meaning Making (TMM) framework by Allard (2015), and Allard and Caidi (2018). TMM was created based on the experiences and information practices of immigrants. The population under investigation are considered temporary whose intentions have always included returning to their home country at the end of their academic journey. As a temporary international students' group with intention to return home, I extend the TMM by including a sixth step to cover the experiences and information practices for ISSMs while preparing to go back to their home country. The findings from the interview study were presented among the chapters 6, 7, and 8.

In this last chapter of the dissertation, the findings from both the first study (online survey) and the second study (interviews) will be revisited. First, a comparison of the findings among the two studies is given. Next, a summary of the overall findings with respect to the research questions are presented. Next the contribution for the theoretical framework, and implications method are presented. Lastly, the limitations, and future work are given.

9.1 Comparing the Two Studies: The Online Surveys and Interviews

Two study phases have been conducted during this research, the online surveys and the interviews (see Table 20). In the survey, the first two research questions were answered. The main

time periods investigated were during early arrival to the USA, and after the initial arrival to the USA. The questions in the survey were a combination of closed-ended and open-ended questions. The responses received from the survey included 68 responses, and 42 respondents completed all survey questions. The respondents' characteristics varied in terms of age, English levels, academic degrees, majors, funding sources, employment, and length of stay in the USA.

Whereas the survey addressed two research questions, the interview study addressed all three. The time periods investigated in the interviews were the pre-arrival to the USA, the early arrival to the USA, shortly after arrival to the USA, and during preparation to go back to Saudi Arabia. The interviews were conducted with eleven ISSM participants. The interview study was guided by the five-steps of TMM framework by Allard (2015), and Allard and Caidi (2018). A sixth step extended the TMM framework to address the time the ISSMs prepared to go back to Saudi Arabia.

Overall, the findings from the survey and interviews were similar though the interviews confirmed and extended the findings from the survey. Both studies showed that the ISSM participants had difficulties and challenges with being an international student and a mother. In the interviews study, the ISSMs participants further shared their motivations for coming to the USA, their feelings, concerns, and adjustment strategies among different times of their stay in the USA across the TMM framework.

Among the main challenges the ISSM participants shared in both studies were the overwhelming amount of additional responsibilities of being a mother and a student, their feelings about insufficient time, financial challenges, lack of social and family support, and mental health issues. Examples of mental health issues included social isolation, stress, depression, and in the survey only, suicidal thoughts. Further in the survey, help seeking behavior was explored. Many

of the survey's respondents indicated that they would seek help for academic matters mainly from their academic advisors. Still, a considerable number of the respondents would not seek any help related to their daily life matters.

Many of the respondents in the survey considered dropping out of the academic degree they were working on. One ISSM participant in the interviews ultimately did drop out from her academic program. Both the survey and the interview findings confirmed the temporary residence of the ISSM participants in the USA, as most of the ISSM participants indicated their intentions to go back to their home country after finishing their studies in the USA.

Regarding their information practices, from both studies, the ISSM participants sought information about housing, safety, daycare, and universities admission especially during their early arrival to the USA. They used various information sources such as search engines, personal connections, and social media platforms. Mainly, the ISSM participants used WhatsApp and Snapchat with noted less use of Facebook. Many of the ISSM participants were aware of, and used, both academic and public libraries.

The third research question was about how the ISSM participants' information practices changed during their academic journey. This was addressed in the interview study. The ISSM participants' information practices evolved over the time of their academic journey as they became more aware of the host country's information landscape and had better language and search skills. Though, their privacy preferences and sharing behavior on social media platforms remained the same. They still have their accounts as private and limit their contacts to family and friends.

Table 20 Shows a comparison of the two studies

	The Survey Study	The Interview Study
Research Questions	RQ1 & RQ2.	RQ1, RQ2, and RQ3.
Number of Participants	42-68 responses.	11 participants.
Time Frame	Early arrival to the USA and after initial arrival to the USA.	Pre-arrival to the USA, the early arrival to the USA, after the early arrival to the USA, and preparing to leave the USA.
Analysis	Descriptive statistics and qualitative analysis.	Qualitative analysis, guided by the five steps of TMM framework, and it was extended to a sixth step.
Findings: Daily Experiences	Being an international student and a mother is difficult. Considered dropping out of school. Asked for help and support sources. Being in the USA is temporary.	Feeling, experiences, adjustment and coping strategies in each step of TMM. Maintain cultural identity for themselves and their children. Being in the USA is temporary.
Findings: Challenges	Lack of social support, financial challenges of daycare, mental health issues, and limited time to address many responsibilities.	Lack of family support in the USA, high expenses of daycare, huge responsibilities, and mental health.
Findings: Information Practices	Main information needs in the early arrival to the USA were housing, safety, daycare, and universities information. Used search engines, family and friends, and social media. WhatsApp and Snapchat were the most used ones, Facebook was not popular among ISSMs. Many were aware and used the academic library and public libraries and their services for themselves and their children and had positive experiences.	Information needs mainly were related to academic and daily needs: daycare, housing, safety and universities information. Saudi friends in the USA was an important source of information. ISSMs used many social media platforms, mainly WhatsApp and Snapchat. Still Facebook was not popular among ISSMs. Groups on WhatsApp: mostly location based, and gender segregated. Provided information and emotional support for ISSMs. Aware of public libraries, used them and had positive experience for themselves and their children.

9.2 Summary of the Findings from Both Studies, the Survey and the Interview

9.2.1 RQ1: What are the experiences and challenges facing ISSMs during their study abroad in the USA?

The results from both the surveys and interviews show that ISSMs' daily experiences during their studies in the USA is challenging. Among the main challenges the ISSM participants had was balancing between their role as mothers and as students. Other challenges include the large number of responsibilities they had, financial challenges because of daycare cost, lack of family support in the USA, and mental health issues. Examples of mental health issues from the data include stress, social isolation, underestimating themselves academically, feelings of guilt related to their children, depression, and ADHD (Attention deficit hyperactivity disorder). Despite the many challenges and these negative experiences, ISSMs also had many positive changes. They became more accepting of other cultures, developed critical thinking, became stronger, more independent, more patient, and more compassionate with their children.

ISSMs' children were also impacted by the academic journey. They were exposed to the American education system which strengthened their soft skills and critical thinking according to their mothers. They mastered English and practiced many activities such as sports, summer camps, and public library activities. Like their mothers, ISSMs' children were exposed to another culture. Maintaining cultural identities and negotiating cultural conflicts were among the daily experiences that these children and their mothers had during their stay in the USA.

A primary concern of ISSMs was the well-being of their children. Prior to their arrival to the USA, finding daycare or schools was among ISSMs' main needs. During their stay in the USA, they were concerned about finding schools/daycare, their children's adjustment in the USA, and practicing the Arabic language while living in the USA. During preparation time, ISSMs worried

about their children adjusting to the education system in Saudi Arabia and mastering the Arabic language. ISSMs wanted to find schools that offered English curriculum in Saudi Arabia. In conclusion, the academic journey of ISSMs was challenging. Still, among these moments of challenges, ISSMs had many positive experiences to share about themselves and their children.

9.2.2 RQ2: What are information practices of ISSM while studying abroad in the USA?

This research question was answered by both the surveys and the interviews. ISSMs sought information prior to their arrival to the USA. At that time, most of the ISSM participants had basic English language skills. Accordingly, they relied mostly on Arabic information sources. Prior to leaving Saudi Arabia, information sessions organized by scholarships' sponsors were provided for some of the ISSM participants. Despite the usefulness of the information shared in these sessions related to living in the USA as an international student, the information was general and did not focus on the parents' or children's needs.

While in the USA, ISSMs became aware of new information sources as they used academic libraries and public libraries. Particularly for the public libraries, ISSMs' perceptions changed regarding libraries from a place for books only to a place for socializing and having fun for themselves and their children. Further, many ISSMs used Google to find information, and they favored their personal connections as primary sources for information. These personal connections consisted of their family, friends in Saudi Arabia, and Saudi friends in the USA. Social media platforms were another main information channel for ISSMs to find academic and daily information as well as emotional support to some extent. ISSMs primarily used WhatsApp and Snapchat while reporting less use of Facebook. In particular, WhatsApp groups provided information and emotional support for ISSMs. Still, ISSMs needed more emotional support

beyond the brief information exchange provided in these online groups. In some WhatsApp groups, it was a requirement to join using the real name and to provide a personal biography to the rest of the group's members. This requirement limited mothers from asking questions freely in these groups, as they would be identified.

ISSMs initial exit and return to their home country was accompanied by similar information needs and different information challenges. Because of their unfamiliarity with the USA information landscape and/or due to their limited language skills at the time, one challenge many ISSMs faced during their pre-arrival phase was not having enough information related to American context. With limited information, ISSMs struggled with housing and daycare policies in addition to the academic admissions process. While preparing to go back to Saudi Arabia, ISSMs had the challenge of finding adequate information online related to their daily needs in Saudi Arabia. To return home the ISSM faced similar challenges included housing, daycare and schools. At this phase, language was not a barrier, rather it was the lack of content available online. Many ISSMs planned to either ask their personal connections in Saudi Arabia or wait until they got back to Saudi Arabia to visit the places physically to get the information they need.

9.2.3 RQ3: How does the information practices of ISSMs change over time during their study abroad?

This question was answered by the interview study and was not included in the survey. ISSMs had social imaginaries about the USA and what their lives in the USA would be like. While some ISSM participants did not imagine the USA, other ISSM participants found the USA to be just as they imagined. Still, once they came and lived in the USA, many of the ISSM participants found the American reality to be different from the USA that they imagined. Many imagined the USA as a place with many fancy buildings like what they had seen in movies, and that their lives

would be rosy and not challenging. Once they came to the USA, these participants sought more information to recontextualize these imaginaries.

ISSMs' information sources included local and transnational networks (Allard & Caidi, 2018). Local networks refer to local sources ISSMs used in a certain place. Examples of local sources in the USA are staff at academic institutions, libraries, and Saudis in the USA. Saudis in the USA are considered local networks as well as co-national social networks according to Oh and Butler (2016, 2018). Recall that co-national social networks are networks made up of international students from the same country of origin residing in the same host country (Oh & Butler, 2016, 2018). Transnational networks are information sources that are located in a different country. For example, if ISSMs used sources in Saudi Arabia while they were in the USA, these would be considered transnational networks. Translocal information practices refer to instances when ISSMs went back and forth between local and transnational sources/networks as part of their everyday life (Allard & Caidi, 2018). The TMM framework (Allard, 2015; Allard & Caidi, 2018) incorporates transnational information practices shifting over time and space while immigrants move through the various phases of migration.

ISSMs mixed local and transnational sources in their information practices. During ISSMs' pre-arrival to the USA (TMM step1), ISSMs received information from sources in Saudi Arabia such as information sessions by the scholarship sponsors, and the Saudi Ministry of Education website. These sources are considered local networks. At the same time, ISSMs relied on Arabic forums such as Mobtath, which had a mix of Saudi students overseas and Saudis in Saudi Arabia who were planning to study overseas. These forums mix local and transnational sources of information with the transnational sources dominating. In other words, while in Saudi

Arabia, ISSMs' information practices were translocal because they consisted of local sources in Saudi Arabia and transnational networks as they connected to Saudis in the USA online.

After coming to the USA (TMM steps 2-5), ISSMs started to build and expand their local networks over time. These networks included local sources in the USA such as libraries, academic staff, Saudi friends, and other friends with similar ethnic cultures (e.g., Arabic nations and Muslims) in the USA. The US-based sources can be considered local while those friends and sources that originated in Saudi Arabia but resided in the USA (Saudi friends and government organizations) are considered co-national as well as local. Preparing to go back to Saudi Arabia (TMM step 6), ISSMs' information practices became again translocal. During that time, ISSMs planned on receiving information from their local social networks (Saudis in the USA) and their transnational networks (Saudis in Saudi Arabia) due to the lack of content online related to Saudi Arabia.

Regarding their information seeking behavior, during pre-arrival ISSM participants mostly relied on Arabic sources such as Arabic forums to find information related to the USA. After they came to the USA, ISSMs' language skills improved. Further, their understanding of the USA information landscape increased as they encountered information accidentally and as their experiences developed. They learned about academic and public libraries. They became better at finding information online once they learned how to search and what to write. They developed critical thinking, the ability to evaluate information, distinguish trusted information sources, and the value of online reviews.

In addition to information seeking behavior changes noted by ISSMs, their uses of social media platforms have changed as well during their academic journey. Most of the ISSM participants interviewed were in the USA for 6-9 years. During their pre-arrival to the USA, social

media platforms were not very popular among the Saudi community. Thus, many ISSMs participants did not use social media platforms before coming to the USA. Some platforms existed such as WhatsApp, and some participants noted that they used it at the time, but its use was limited to connecting with family and friends.

After coming to the USA, and with the increased adoption of WhatsApp among the Saudi community, many WhatsApp groups were created. ISSM participants joined these groups through their personal connections, mainly other Saudi students in the USA. WhatsApp use increased from being limited to family and friends to also include groups which had Saudi students in the USA, other Arab groups in the USA, and mothers in the USA. Many of these groups were segregated by gender. Further, the groups were usually based on a certain region or city in the USA. Some of the ISSM participants noted that after they finish their studies and go back to Saudi Arabia, they may leave some of these groups because the information exchanged would not be relevant to them anymore.

In addition to the use of WhatsApp, ISSMs used other platforms such as Snapchat, Instagram, Twitter, and Facebook. ISSMs changed their adoption of social media platforms over time. While they did not use social media platforms during their pre-arrival, they heavily used WhatsApp and later Snapchat after they came to the USA as they became more popular among many Saudis. ISSMs said they might continue to use different platforms of social media depending on the adoption of their community after they go back to Saudi Arabia. Despite their changes of uses and adoption of social media platforms, privacy settings remained the same for the ISSM participants. That is as they still have many of their accounts as private, limited to their family and friends, and still abstained from sharing their pictures (selfies) publicly.

9.3 Theoretical Contributions

This research contributes to the current literature of information practices of international students and mothers during cultural transitions. Further, this research extends the five steps of the TMM framework (Allard, 2015; Allard & Caidi 2018) to a new sixth step.

The TMM framework was created based on the information practices and daily experiences of a population of immigrants who moved from the Philippines to Winnipeg, Canada. These immigrants wanted to settle and start their new life in the host country and shared no indications that they wished to return to their home country. Because the population of international students shared similar information practices to immigrant populations, the TMM framework was used in this study. While many international students intend to immigrate to their host country (Worrall et al., 2019), the group investigated in this research had no intentions of permanently immigrating to the host country. Rather, ISSMs planned to return to their home country after they finished their studies. This was confirmed in both the survey and the interview studies. As this phase was not captured in the original TMM framework (Allard, 2015; Allard & Caidi, 2018), the results from this study extend the TMM framework to include a sixth step to capture the time, preparations, and perceptions of going back to Saudi Arabia. This sixth step is a new addition to the existing TMM framework. Further, all the previous studies which applied the TMM framework (Allard, 2015; Allard & Caidi, 2018; Caidi, 2019; Caidi et al., 2019) were not related to international students. Rather, they explored immigrant populations (Allard, 2015; Allard & Caidi, 2018; Caidi et al., 2019) and Hajj pilgrims to Makkah (Caidi, 2019). While, both Hajj pilgrims and ISSMs' sojourns in the host country are temporary, pilgrims stay in Makkah for a shorter time (from days to months) compared to ISSMs' stay in the USA which may involve years of an academic journey. This longer stay for ISSMs required them to adjust themselves and their children to living in the

USA, manage their academic and daily life in the USA, and later re-adjust to live in their home country after being away for a couple of years. Accordingly, the sixth step of the TMM framework captures ISSMs' perceptions, concerns, feelings, re-adjustment, and their information practices during their preparation to go back to Saudi Arabia.

In summary, this extension is a new contribution to the theoretical framework as this research applied the TMM framework to a new population- a group of international students whose stay is long and has plans to go back to their home country at the end of their academic journey. Thus, the extended TMM framework can be useful and further applied to groups, beyond international students, who plan to stay for a long time in the host country but eventually plan to go back to their country of origin. Examples include government workers (diplomats), training and business exchange programs, temporary workers, and people residing in the host country for medical treatment purposes.

9.4 Implications for policy and practice

The findings from this research can inform groups interested in helping international students and mothers during the different phases of their academic journey. These groups include institution officials, librarians, educators, and policymakers in both countries.

9.4.1 More information and training programs during pre-arrival to the USA

The ISSM participants' awareness and knowledge of the information landscape in the USA increased gradually during their academic journey in the USA. ISSMs' lack of knowledge added to their challenges before they became advanced information seekers later during their academic journey. If they were prepared with more information, search skills, and advanced language then their information transition would have been easier. Accordingly, it is important to offer more information sessions and training for future scholars before their departure from Saudi Arabia.

These information sessions should consider academic and daily information needs for prospective students as well as student-parent.

9.4.2 Extended family leave for scholar's spouse

The ISSM participants varied in terms of the family support they had during their studies in the USA. Family support refers to whether or not the participants had their husbands or other family members residing with them in the USA during their studies. Most of the participants from both the survey and the interviews had husbands residing with them during their studies in America. A few participants either had no family members residing with them other than their children or had their husbands initially with them in the USA but the husbands later returned to Saudi Arabia because of job obligations. If the overall experience of ISSMs was challenging, it was even more challenging for the ISSMs who were staying in the USA by themselves without their husbands' support. According to scholarships' guidelines in Saudi Arabia, female students need one of their male relatives to reside with them for the entirety of studies in the host country. However, this was not always the case for all the ISSM scholarship participants. Some jobs did not allow their husbands to stay abroad with their wives for a long time. Accordingly, these ISSMs stayed in the USA without their husbands and notified SACM (Saudi Arabia Cultural Mission in Washington DC) about their husbands' approval regarding their stay in the USA alone. It is important to consider some rules changes in Saudi Arabia related to job policies to allow for extended stay of ISSMs' husbands so they can reside and support their wives during their entire studies abroad.

9.4.3 More financial support

Daycare was one of the main ways many of the ISSM participants received help caring for their children. Both the main scholarship's holder and her/his spouse receive an equal amount of

stipend. However, children receive a limited amount of money added to the stipend of the main scholarship holder (Alhajjaj, 2016). Despite the financial support that many of the ISSM participants received from their scholarship, they still required further financial support to cover the high costs of daycare. Echoing their voices, scholarship program officials should consider this need given that other ways of financial support for international students, such as jobs in the host country, are limited and would take time away from the time limits on their scholarships.

9.4.4 Mental health resources

During the ISSM participants' stay in the USA, some of the participants indicated that they would not seek help from others if they faced a challenge or problem related to their daily life. Having mental health issues such as stress, anxiety, and depression are not surprising for the population of international students or mothers. The number of ISSM participants who indicated these types of feelings and their hesitation to seek help from specialists over the course of this study was unexpected. A possible explanation can be as seeking help behavior in Saudi culture is only for serious matters and there is some stigma associated with seeking help for mental health as noted in (Lefdahl-Davis & Perrone-McGovern, 2015). This finding regarding ISSMs' hesitation to seek mental health help should inform the scholarship's sponsors and university officials in the USA. Both entities should encourage ISSMs to seek help regarding their mental health and emotions and probably need to provide anonymous sources of help.

9.4.5 American academic institutions and student-mothers' needs

Academic institutions in the USA, including faculty, programs' administrators, and international offices, should understand the idea that women who are mothers might need support beyond that of the average female student or the average female international student. An important need that many ISSMs mentioned is childcare. Many of the classes for the graduate

level, for instance, are given during evening hours to fit working students' needs. However, having graduate classes exclusively offered during evening hours would be a challenge for student-mothers. Schools and even daycares close at an earlier time compared to the evening classes' time. The need for childcare during the evening class is concerning for domestic student-mothers as well as international student-mothers, including ISSMs. Though, for international student-mothers, it could be more problematic as they lack childcare support beyond daycare and schools due to the absence of their extended families.

Another aspect to consider is to provide more information about daycare on the websites of American academic institutions. For example, it would be helpful if international offices websites provided a list of recommended daycares near their academic institutions or include some of the contact information of the current student-mothers in their institutions. A brief introduction about the main childcare rules should also help such as the accepted age of children and the concept of waiting list which many daycares have.

9.4.6 Programs for ISSMs and their children upon returning to Saudi Arabia

Despite the timing of motherhood, all ISSM planned to return their home country with their children. Many of their concerns and information needs were related to their children. Enrolling their children in international schools was among the main adjustment plans many of the ISSM participants anticipated upon return home. Though, these schools are private, expensive, and limited in numbers compared to public schools in different cities in Saudi Arabia, the ISSM identified these schools as a solution to help their children transition to being in Saudi Arabia. Thus, adjustment programs in Saudi Arabia for the children raised overseas is important. An example could be having special programs within public schools in Saudi Arabia for children coming from overseas. These programs should focus on teaching English while still introducing

Arabic in suitable levels for these children to help them adjust to the differences in the two education systems.

Children are not the only ones who need to adjust to living in Saudi Arabia, after a couple of years residing in the USA. Their mothers need to readjust too. We cannot assume that just because these mothers were going back to their home country that they would immediately adjust and face no challenges. More time and programs should be available in Saudi Arabia to help support ISSMs and their children upon their return. For the ISSMs who return with jobs, they must use some of the transition time to reconnect with their jobs and acquire up-to-date information about their job's procedures. For the ones who needed to find a job, they still need to receive help concerning the channels they can use to find information about employment, possible housing, and schooling for their children as well.

9.4.7 Sustained and central source of information

ISSMs highly relied on their co-national connections in the USA as a main source of information. Despite the importance of the Saudi students' community in the USA, it is a temporary information source. Unlike immigrant groups, most of the ISSM participants planned to go back to Saudi Arabia whether they finished their academic degree or not with no intention of staying in USA or eventually becoming a US citizen. The presence of a Saudi community in the USA depends on the number of scholars in a certain area and the continuity of the scholarships' programs. The more presence of Saudi students in a certain city/region in the USA, the more active and up to date their online communities would be such as Saudi clubs' associations' websites and accounts on social media. These online communities are highly dependent on the participation of current Saudi students in that place in the USA, especially with the possibility of members leaving/unfollowing these online channels upon their return to Saudi Arabia. Accordingly, there is

a need to document the current ISSMs' and other scholars' experiences and communicate them to perspective scholars. This communication could be facilitated on an online official channel to sustain this community support and information for future scholars and ISSMs who intend to study in the USA.

Regarding their preferred social media platform, the ISSMs used both WhatsApp and Snapchat to exchange information. Still these channels of information are not always a reliable source of information because message could be temporary and random. Further, joining a certain WhatsApp group for instance, depends on an individual's knowledge of the group's existence, knowing the right person to join such a group, and the group members' knowledge and desire to answer questions. Thus, there is a need to have an information source which is more reliable, archived, and official. These information sources can be accessed online, include information from official sources, and do not require knowing a personal connection to access this information. It could also be more interactive by having questions and answers feature. Examples of such information sources are website or applications supervised by organizations such as the international students' offices, SACM in the USA, Saudi student clubs in the USA, and the Saudi Ministry of Education. While some of these official organizations provide information, it is not enough. For example, Saudi students' clubs in different cities have online websites or social media accounts, though as shown from the data, not all the ISSM participants knew about these information channels or did not find the information they needed such as daycare or children activities in the area.

9.4.8 Communication through preferred information channels

From the findings, we learned many of the information practices for ISSMs and their preferences for certain social media platforms. Knowing the social media channels ISSMs preferred to use can help communicate information to them more effectively. The findings showed that WhatsApp and Snapchat are the main social media platforms ISSMs used to exchange information. Accordingly,

communicating through these platforms about social activities and events between university's officials such as international students' services and/or librarians would be more effective and engaging for ISSMs.

9.4.9 Suggestions for design and technology

The ISSM participants used WhatsApp for communication with friends and family as well as other groups which were not within their close circle. One of the ISSM participants suggested, WhatsApp could include tabs to distinguish work and official groups from family and friends' groups. Another suggestion is to include the ability to have previous posts in WhatsApp groups archived. This feature would help members who join a group later to find previous posts shared by the other group members before they join. Though, searching previous posts might be a consuming time process, and thus, improvement in searching previous posts is also needed in WhatsApp.

Moreover, it is important to keep in mind the cultural preferences for different user groups when designing a new application or improving an existing one. As shown from the data, the information practices for ISSMs changed over their academic journey, except for their privacy preferences. That as they still do not share selfies publicly and have most of their social media accounts set to private are evidence that cultural practices need to be incorporated in website designs. Thus, it is important to avoid making the sharing of a personal image a requirement to create an account on online platforms. Further, this finding should inform groups such as university officials, professors, conference organizers to also avoid similar requirements and consider different privacy settings among different user groups.

The ISSM participants were always concerned with childcare and education. Regarding childcare, an application or website with daycare recommendations from other student-mothers or previous ISSMs would be a great source of help. Similarly, there should be an official application or website to help bridge the gap in Arabic language levels and detail the educational differences

between both countries for children while overseas. Further, having a list of available international schools or schools that teach English in Saudi Arabia on an online official source such as the Ministry of Education website would be a great source of help for many ISSMs while abroad.

This online official source could contain information that vetted socially and by the institution, and textual response also comes with the contact information of the person that you could ask questions. In order for that to be possible, the content should exist online first. For example, the websites of the Saudi Ministry of Education or/ and SACM could provide information about living in the host country as an international student as well as a parent. Further, it is important to include on these websites the contact information of some of the previous students. Having this contact information visible online on a formal source would enable future students to connect with previous scholars and benefit from their past experiences of living and studying overseas. Similarly, for the websites of American academic institutes, it would be helpful if they would include pictures and contact information of previous or current international students, including student-parents in their institutions. Connecting previous students to prospective students and having the information in one official place can help potential students have a better understanding of the place they are planning to study in.

In conclusion, the international scholarship program in Saudi Arabia has been around for many years and will remain for years to come. Accordingly, many scholars have come to the USA to study and returned to Saudi Arabia after completing their studies. Previous scholars are an important information source for perspective students and mothers who intend to study abroad. More information communication is needed between the students who have returned and the students who plan to study abroad. These communication channels could be facilitated through official information sources, during information sessions, or online resource. This would help in

easing the transition for the perspective students as they would know what to expect and have fewer surprising moments.

9.5 Limitations and Future Work

The main population in this research is international-student mothers from Saudi Arabia who were residing in the USA at the time of the interview and completion of the survey. This study collected data related to different points in the life of the ISSM participants, however, this study was not a longitudinal study. Accordingly, the participants relied on their memory to answer the questions about their experiences and information practices during different periods of their academic journey. Adopting a longitudinal approach by collecting data from the same participants over different times may improve the participants' recall. However, maintaining the same participants over different time points is risky as they may change their minds about participating in the study or quit their academic journey at any point, and then their collected data will not be useful. Therefore, for practical reasons including time and retaining participants, I decided not to use a longitude approach. This decision also follows the original method used in Allard (2015) when she first originated the TMM framework.

The other limitation speaks to the qualitative method adopted in this study. The findings from this research is not meant to be generalized to all mothers or international students but rather to give insights into the lived experiences and information practices of the understudied ISSMs' population. Future work should continue exploring the information practices of understudied populations. An area of focus would be to explore the information practices for ISSMs after their actual return to Saudi Arabia.

Appendices

Appendix A- UMBC IRB approval



AN HONORS UNIVERSITY IN MARYLAND

Office of Research Protections and Compliance

University of Maryland, Baltimore County

1000 Hilltop Circle

Baltimore, MD 21250

PHONE: 410-455-2737

EMAIL: compliance@umbc.edu

WEB: research.umbc.edu

Date: 5/13/2019

To: Wajanat Rayes, Anita Komlodi, Ashwag Alasmari

Department: Information Systems

Notice of Action: Protocol Modification Approval

UMBC Protocol #: Y19AK12145

Protocol Title: Understanding the role of information during cultural transition in the life of international student Saudi mothers (ISSM) in the USA

Original approval date: 4/9/2019

Modifications submitted: **5/8/2019**

Your request for approval of changes made to the documents for your protocol entitled **Understanding the role of information during cultural transition in the life of international student Saudi mothers (ISSM) in the USA**, has been approved by the Chair of the Institutional Review Board. This research was previously reviewed and approved by the IRB, where no greater than minimal risks to participants and no additional risks were identified.

You may proceed with the modifications noted in the above submission. Note that all other conditions and investigator responsibilities outlined in the original approval letter are still in force. If you have any questions, please contact the Office of Research Protections and Compliance at 5-2737 or compliance@umbc.edu. Thank you.

Notes:

In the previous IRB application, I did not plan to compensate the participants. However, now I want to offer a \$10 Starbucks gift card for each participant in the interview and 3 raffle drawings for the survey participants. I believe this will motivate more people to participate in the study. I will apply couple times for the GSA research grant to compensate the participants. I am modifying the flyer for the interview and adding a new flyer for the survey to add the benefit/compensation part.

Appendix B- Interview Instrument in English and Arabic

Interview questions in English

Before coming to the USA

- 1- What made you decide to come to the USA?
- 2- How did you feel about coming to the USA then?
 - a. How about your family (husband and children), how did they feel?
- 3- Did you become a mother for the first time in the USA or in Saudi Arabia?
- 4- Did you have any concerns before coming to the USA? Can you tell more.
 - a. As a mother did you had any concerns before coming to the USA (if they became mother for the first time in Saudi Arabia)
- 5- Back when you were still in Saudi Arabia,
 - a. What was the most important information that you wanted to know about living in the USA as an international student and a mother?
 - b. How did you find this information?
 - c. Did you happen to encounter any difficulties or challenges when you searched for this information? Can you tell me more?
- 6- Did you use social media back when you were in Saudi Arabia? If yes,
 - a. What platforms did you use?
 - b. How did you use each platform?
 - c. Did you share any content on any social media platform back then?

Early days of arrival to the USA

- 7- When you first arrived in the USA, did you find it as you expected or imagined? in what way?
- 8- How did you feel in the first year of coming to the USA?
 - a. How did your family (husband and children) feel in the first year of coming to the USA?
- 9- What was your experience in the first year of being in the USA?
 - a. How did you adjust to living in the USA?
 - b. How about your family, how did they adjust?
- 10- What type of information did you search for in your first year of being in the USA?
 - a. How did you find this information?
 - b. Did you happen to encounter any difficulties or challenges when you searched for this type of information? Can you please tell me more.

After the first year of being in the USA

- 11- After the first year of being in the USA, can you tell me more about your day to day experience as a mother and a student in a foreign country?

- a. Did you find it challenging to balance?
 - b. How do you balance the two roles?
- 12- How about your experience with raising your children in a different cultural context, can you tell me more?
- a. Did you use any support channels to help with raising your children? Can you tell me more.
- 13- What type of information do you search for on daily bases?
- a. How do you find this information?
 - b. Do you encounter any challenges finding this information? Can you tell me more
- 14- Do you use social media currently? If yes
- a. What social media platforms do you use on daily bases?
 - b. What do you use each platform for?
 - c. Do you share any content on social media platforms? Can you tell me more?
 - d. Do you trust the information you receive from social media? Can you tell me more.
- 15- Where would you go to ask for help if you encounter a problem related to:
- a. Your Academic life, and why
 - b. Your everyday life, and why
- 16- When you reflect on your journey coming from Saudi Arabia to the USA, what are some of the things that you wish you had known earlier as an international student and a mother?
- 17- What could have been provided to help support you more during your journey as an international student and a mother?
- 18- What would you suggest to be added to the current systems (such as social media platforms, search engines, mobile applications or websites) to help find more useful information for you and other student mothers during their journey?
- 19- What is your advice for future student mothers who are planning to study abroad?

Preparing to go back to Saudi Arabia

- 20- After finishing the degree you are working on, are you planning to go back to Saudi Arabia? if yes,
- a. How do you feel about going back to Saudi Arabia?
 - b. How does your family (children and husband) feel about it?
- 21- Can you tell me more about your thoughts/plan to readjust after you go back to Saudi Arabia for you and for your children?
- a. How do you prepare your children for the return?
- 22- In preparation process of going back to Saudi Arabia:

- a. What type of information do you want to know about?
- b. Where would you go to find this type of information?
- c. Do you think you may encounter any difficulties/challenges while searching for this information? can you tell me more

23- How would you use social media in preparation to go back to Saudi Arabia?

Overall the journey and final thoughts

- 24- Can you please tell me more if being a student and a mother in the USA had any impact on
- a. Your personality
 - b. Your family (husband and children)
 - c. The way you search for information
 - d. The way you share information in daily life (offline) or on social media (online)

25- Would you like to add anything to our conversation?

Interview questions in Arabic

قبل القدوم للولايات المتحدة

- 1- بداية، ما الذي جعلك تقرر المجيء إلى الولايات المتحدة؟
- 2- كيف كان شعورك حيال القدوم إلى الولايات المتحدة حينها؟
 - a. كيف كان شعور زوجك وأبنائك حيال القدوم إلى الولايات المتحدة حينها؟
- 3- هل أصبحت أمًا لأول مرة في الولايات المتحدة أو في المملكة العربية السعودية؟
- 4- هل كان لديك أي مخاوف تتعلق بالقدوم إلى الولايات المتحدة قبل المجيء إليها؟ أرجو إخباري المزيد.
 - a. كأم، هل كان لديك أي مخاوف تتعلق بالقدوم إلى الولايات المتحدة قبل المجيء إليها؟ (في حال أصبحت أما للمرة الأولى عندما كنت بالمملكة العربية السعودية) أرجو إخباري المزيد.
- 5- بينما مازلت في المملكة العربية السعودية:
 - a. كطالبة دولية وأم، ما هي أهم المعلومات التي كنت ترغب بمعرفتها بخصوص العيش في الولايات المتحدة قبل المجيء إليها؟
 - b. كيف وجدت هذه المعلومات؟
 - c. هل صادفت أي صعوبات أو تحديات عند البحث عن هذه المعلومات؟ أرجو إخباري المزيد.
- 6- هل استخدمت أي من وسائل التواصل الاجتماعي بينما لازلت في المملكة العربية السعودية؟
 - a. ماهي بالتحديد برامج التواصل الاجتماعي التي قمت باستخدامها حينها؟
 - b. ماذا كانت طبيعة استخدامك لكل وسيلة أو برنامج منهم؟
 - c. هل قمت بمشاركة أي محتوى على أي وسيلة من وسائل التواصل الاجتماعي حينها؟

الأيام الأولى من القدوم إلى الولايات المتحدة

- 7- عندما وصلت إلى الولايات المتحدة لأول مرة، هل وجدت كما تخيلتها؟ أرجو إخباري المزيد.
- 8- كيف كان شعورك في الأيام الأولى من وصولك إلى الولايات المتحدة (على سبيل المثال الأشهر القليلة الأولى أو السنة الأولى)؟
 - a. كيف كان شعور أبنائك وزوجك خلال الأيام الأولى من الوصول إلى الولايات المتحدة؟
- 9- أرجو إخباري المزيد عن تجربتك في السنة الأولى من وصولك إلى الولايات المتحدة؟
 - a. كيف تكيفت مع العيش في الولايات المتحدة الأمريكية حينها؟
 - b. ماذا بخصوص عائلتك، كيف قاموا بالتكيف مع العيش في الولايات المتحدة؟
- 10- ما هي المعلومات التي بحثت عنها خلال السنة الأولى من إقامتك بالولايات المتحدة؟
 - a. كيف وجدت هذه المعلومات؟
 - b. هل صادفت أي صعوبات أو تحديات عند البحث عن هذه المعلومات؟ أرجو إخباري المزيد.

بعد السنة الأولى من البقاء في الولايات المتحدة

11- بعد السنة الأولى من بقاءك في الولايات المتحدة، هل يمكن أن تخبريني المزيد عن تجربتك اليومية كأم وطالبة في بلد أجنبي؟

- a. هل وجدت صعوبة في الموازنة بين دوري الدراسة والأمومة؟
- b. كيف تقومين بالموازنة بين الدورين؟

12- ماذا بخصوص تجربتك فيما يتعلق بتربية أطفالك في بيئة حضارية مختلفة، هل ممكن ان تخبريني المزيد

- a. هل استخدمت أي وسائل مساعدة فيما يتعلق بتربية أطفالك؟

13- ما هو نوع المعلومات التي تبحثين عنها بشكل يومي؟

- a. كيف تجددين مثل هذه المعلومات؟
- b. هل واجهت صعوبة في الحصول على هذه المعلومات؟ أرجو اخباري المزيد

14- هل تقومين باستخدام أي وسائل التواصل الاجتماعي حالياً، في حال كانت اجابتك بنعم

- a. ماهي وسائل تواصل اجتماعي التي تقومين باستخدامها بشكل يومي؟
- b. ما هو نوع او هدف استخدامك لكل وسيلة منهم؟
- c. هل تقومين بمشاركة أي محتوى على وسائل التواصل الاجتماعي؟ أرجو اخباري المزيد
- d. هل تثقين بالمعلومات التي تتلقينها من خلال وسائل التواصل الاجتماعي؟ أرجو اخباري المزيد

15- أين من الممكن ان تذهبي في حال واجهتك مشكلة تتعلق

- a. بحياتك الأكاديمية، ولماذا؟
- b. بحياتك اليومية، ولماذا؟

16- عندما تعودين للوراء وتسترعين رحلتك العلمية قدوما من المملكة العربية السعودية الى الولايات المتحدة، ماهي بعض الأشياء التي تمنيت لو أنك عرفتها مسبقا كأم وطالبة دولية؟

17- ما الذي كان يمكن توفيره لمساعدتك ودعمك أكثر أثناء رحلتك الأكاديمية كطالبة دولية وأم؟

18- ماهي الإضافات التي تقترحي اضافتها الى الانظمة الحالية (مثل وسائل التواصل الاجتماعي أو محركات البحث أو تطبيقات الهاتف المحمول أو مواقع الويب) للمساعدة في العثور على معلومات مفيدة لك وللطالبات الأمهات الأخريات؟

19- ما هي نصيحتك للأمهات الطالبات المستقبليات اللواتي يخططن للدراسة في الخارج؟

فترة التحضير للعودة الى المملكة العربية السعودية

20- بعد الانتهاء من الدرجة التي تعملين عليها، هل تخططين للعودة إلى المملكة العربية السعودية؟ اذا كانت اجابتك نعم،

- a. كيف تشعرين حيال العودة الى المملكة العربية السعودية؟
- b. كيف هو شعور ابنائك وزوجك حيال العودة؟

21- هل يمكن اخباري المزيد عن خطتك أو افكارك بما يتعلق بكيفية التعود والتعايش في المملكة العربية السعودية بعد

- تواجدك في الولايات المتحدة لفترة من الزمن؟
- a. كيف تحضرين أطفالك للعودة؟

22- خلال فترة التحضيرات التي تقومين بها للعودة الى المملكة العربية السعودية:

- a. ماهي المعلومات التي ترغبين بمعرفتها؟
- b. أين سوف تبحثين عن هذه المعلومات؟
- c. هل تتوقعين ان تواجهي أي صعوبة في الحصول على هذه المعلومات؟ أرجو اخباري المزيد.

23- فيما يتعلق بتحضيراتك للعودة الى المملكة العربية السعودية هل هناك طريقة معينة تتوين اتباعها فيما يتعلق بطريقة استخدامك لوسائل التواصل الاجتماعي؟

فيما يتعلق بالرحلة العلمية والسلوك المعلوماتي بشكل عام

24- أرجو ان تخبريني المزيد عما اذا كونك أم وطالبة في الولايات المتحدة كان له أي تأثير على:

- a. شخصيتك
- b. ابنائك وزوجك
- c. طريقة بحثك وإيجادك للمعلومات
- d. طريقة مشاركتك للمعلومات سواءا في حياتك اليومية أو من خلال استخدامك لوسائل التواصل الاجتماعي؟

25- هل ترغبين بإضافة أي شي الى حديثنا؟

Interview Questionnaire

Please enter the participation number provided to you by the researcher: _____

What is your age group?

- ☐ 18-25
- ☐ 26-30
- ☐ 31-35
- ☐ 36-40
- ☐ 41 or above

How would you assess your level of English proficiency (written and spoken)?

- ☐ Beginner
- ☐ Intermediate
- ☐ Advanced

What is your current marital status?

- ☐ Married
- ☐ Not married

Do you have any of your children living with you in the USA?

- ☐ Yes
- ☐ No

How many children do you have?

- ☐ 1 child
- ☐ 2 children
- ☐ 3 children
- ☐ 4 children
- ☐ 5 children or more

Please write the age and gender of each child

	Age	Gender
Child #1		
Child #2		
Child #3		
Child #4		
Child #5		

Other than your child(ren), which other family members are currently living with you in your household in the USA? (select all that apply)

☐

Husband

☐

Brother

☐

Father

☐

None

☐

Others, please specify _____

How long have you been living in the USA?

- ☐ One year or less
- ☐ 2 to 5 years
- ☐ 6 to 9 years
- ☐ 10 years or more

What is the degree you are currently seeking in the USA?

- ☐ Bachelors
- ☐ Masters
- ☐ PhD
- ☐ Others: please specify _____

What is your field/ major of the study? (no abbreviation, please)

Are you sponsored by any of the following scholarship programs? (select all that apply)

- ☐ The Saudi government scholarship program
- ☐ Saudi universities scholarships
- ☐ Private sector Saudi employers
- ☐ Self-funded
- ☐ Scholarship programs in the USA
- ☐ Others: please specify _____

Are you currently employed? (select all that apply)

- ☐ I am employed in a Saudi Arabian entity/organization
- ☐ I am currently employed in the USA
- ☐ I am currently not employed
- ☐ Other: please specify _____

After you finish the degree you are currently working on, how likely are you to go back to Saudi Arabia?

- ☐ Very likely
- ☐ Somewhat likely
- ☐ Not likely
- ☐ Prefer not to answer

Please tell us why you choose this option in the previous question

Appendix C- Interview Consent Form



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INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES

Whom to Contact about this study:

Principal Investigator: Wajanat Rayes, Dr. Anita Komlodi

Department: Information systems

Telephone number: (410) 455-3212

Understanding the role of information during cultural transition in the life of international student Saudi mothers in the USA

This is a consent form for participation in a research project. Your participation in this research study is voluntary. It contains important information about this study and what to expect if you decide to participate. Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate.

I. PURPOSE OF THE RESEARCH:

The purpose of this study is to understand the lived experience of international student Saudi mothers (ISSM) in the USA and the ways information can support them during their cultural transition. This includes the topics they are interested in and where they get this information related to daily and academic life. About 20 persons will be invited to participate.

II. PROCEDURES:

As a participant in this study, I will be asked to do one-on-one interview with the primary investigator of this research. Questions in the interview will be related to demographic information, aspects of information practice, lived experiences and lessons learned. The interview will last around 60 minutes. During the interview session, notes will be taken, and if I give my permission, my voice will be recorded (for transcription purposes only). All interview data and audio recording will be confidential and no personal identifying information will be written and I will be referred by a random number (ID). My involvement in this study will begin when I agree to participate and will continue until the end of the interview session on the same day. I am being asked to volunteer because I fit with the participation criteria for this research, as I am an international student Saudi mother in the USA. The interview will take place based on my convenient time and location. Also, it can be done through online tools such as Skype or Google hangout based on my preferences.

III. VOLUNTARY PARTICIPATION

I have been informed that my participation in this research study is voluntary and that I am free to withdraw or discontinue participation at any time. If I withdraw from this research study, I will not be penalized in any way for deciding to stop participating or lose any benefits to which I am otherwise entitled. I have been informed that data collected for this

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03/30/2020

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study will be retained by the investigator and analyzed even if I choose to withdraw from the research. If I do choose to withdraw, the investigator and I have discussed my withdrawal and the investigator may use my information up to the time I decide to withdraw.

IV. RISKS AND BENEFITS OF BEING IN THE STUDY:

The study involves the following foreseeable risks: potential risks are considered minimal. I may experience minor tiredness from participating in the interview. To further minimize this risk, I will be allowed to take breaks during the interviews.

V. COMPENSATION/COSTS:

My participation in this study will involve no cost to me. I will be given for my participation \$10 Starbucks gift card.

VI. CONFIDENTIALITY:

Any information learned and collected from this study in which I might be identified will remain confidential and will be disclosed ONLY if I give permission. The investigator (s) will attempt to keep my personal information confidential. To help protect my confidentiality, I will be given a random ID and all information collected in this study will be stored on password-protected secure web host (UMBC Box).

Only the investigator and members of the research team will have access to these records. If information learned from this study is published, I will not be identified by name. By signing this form, however, I allow the research study investigator to make my records available to the University of Maryland Baltimore County (UMBC) Institutional Review Board (IRB) and regulatory agencies as required to do so by law.

Consenting to participate in this research also indicates my agreement that all information collected from me individually may be used by current and future researchers in such a fashion that my personal identity will be protected. Such use will include presentations at scientific or professional meetings, publishing in scientific journals, sharing anonymous information with other researchers for checking the accuracy of study findings and for future approved research that has the potential for improving human knowledge.

_____ I give permission to record my voice

_____ I do not give permission to record use my voice

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VII. CONTACTS AND QUESTIONS:

The principal investigator(s), Wajanat Rayes has offered to and has answered any and all questions regarding my participation in this research study. If I have any further questions, I can contact Wajanat Rayes at warayes1@umbc.edu

If I have any questions about my rights as a participant in this research study, I can contact the Office of Research Protections and Compliance at (410) 455-2737 or compliance@umbc.edu. All reports or correspondence will be kept confidential.

I will be given a copy of this consent form to keep.

VIII. SIGNATURE FOR CONSENT

I have read (or someone has read to me) this form, and I am aware that I am being asked to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. I voluntarily agree to participate in this study.

Printed Participant's Name: _____

Participant's Signature: _____ Date: _____

Person Obtaining Consent: _____

Signature: _____ Date: _____

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Appendix D- Online Survey Instrument in English and Arabic

ISSMs Research Survey

Consent form

Q1 * You may switch to Arabic version by choosing Arabic from the language bar on the top right of this page

Thank you for agreeing to participate in our survey.

Before we start, we'd like for you to read the informed consent information below. Informed consent refers to the voluntary choice of an individual to participate in research based on an accurate and complete understanding of its purposes, procedures, risks, benefits, and alternatives. The survey will be completely anonymous and voluntary. We do not ask or identify any individuals who plan to participate in this survey. If you have any questions before completing this survey, please contact the investigators, Wajanat Rayes by email: warayes1@umbc.edu or Dr. Anita Komlodi by Phone: (410) 455-3212.

Informed consent

You must be of 18 years or older to participate in this survey.

The purpose of this study is to understand the lived experience of international student Saudi mothers (ISSMs) in the USA and ways information can support them during their cultural transition. This includes the topics they are interested in and where they get this information.

You are being asked to volunteer because you fit with the participation criteria for this research, as you are an international student Saudi mother in the USA. you will be asked to answer the questions in the online survey. The survey may take about 20-35 minutes to complete.

As a participant in this study, I will be asked to fill the online survey questions. The first question in the survey will check if I fit with the target study sample or not. If I fit with the criteria, I will continue to the rest of the survey questions. If I do not fit with the research criteria, I will be exited from the online survey and thanked for my time. My involvement in this study will begin when I agree to participate and will continue until the end of the survey questions. Participation in this study will involve responding to questions related to demographic information, information practice, use of social media platforms, and lived experience. I will be assigned a random number (ID) and no personal identifying information will be written with responses to the questions.

I have been informed that my participation in this research study is voluntary and that I am free to withdraw or discontinue participation at any time. If I withdraw from this research study, I will not be penalized in any way for deciding to stop participating or lose any benefits to which I

am otherwise entitled. I have been informed that data collected for this study will be retained by the investigator and analyzed even if I choose to withdraw from the research. If I do choose to withdraw, the investigator and I have discussed my withdrawal and the investigator may use my information up to the time I decide to withdraw.

There are no known risks involved in completing the survey. There are no tangible benefits for completing the survey, but I may help the research communities to understand the information needs and challenges faced by a specific group of international students. Therefore, help prospective students and inform policymakers and systems developers to address these needs and challenges. After taking the survey, there will be 3 raffles drawing for \$10 Starbucks gift card in a separate survey. If you would like to participate in the raffle drawing, please enter your email. There will be no corresponding data between the data entered in the study survey and the email entered in the raffle survey as each survey is separate.

All data obtained will be anonymous. There is no way for us to find out who you are, and your data will not be shared with any other parties under any circumstance.

Any information learned and collected from this study in which I might be identified will remain confidential and will be disclosed ONLY if I give permission. The investigator (s) will attempt to keep my personal information confidential. To help protect my confidentiality, I will be given random ID numbers, responses will be shared only with the research team, and all data will be stored in a password-protected web host.

Only the investigator and members of the research team will have access to these records. If information learned from this study is published, I will not be identified by name. By signing this form, however, I allow the research study investigator to make my records available to the University of Maryland Baltimore County (UMBC) Institutional Review Board (IRB) and regulatory agencies as required to do so by law.

The principal investigator(s), Wajanat Rayes and Dr. Anita Komlodi has offered to and has answered any and all questions regarding my participation in this research study. If I have any further questions, I can contact Wajanat Rayes at warayes1@umbc.edu

This study has been reviewed and approved by the UMBC Institutional Review Board (IRB). A representative of that Board, from the Office of Research Protections and Compliance, is available to discuss the review process or my rights as a research participant. Contact information of the Office is (410) 455-2737 or compliance@umbc.edu.

After reading the consent items, please proceed to the questionnaire on the next page. Click

"Next" to get started with the survey. If you'd like to leave the survey at any time, just Exit the browser.

I have been informed that I may print out a copy of the consent document for me to keep

شكرا لرغبتك بالمشاركة في هذه الدراسة
نص الموافقة على المشاركة في هذه الدراسة متوفر باللغة الانجليزية فقط بينما جميع الاسئلة التي تليه متوفرة باللغتين العربية والانجليزية. بإمكانك التحويل بين اللغتين من خلال شريط اللغة في الركن الايمن العلوي

Q2 Are you 18 years old or older, Saudi mother of at least one child, currently studying in the USA, and use social media networks?

☐ Yes

☐ No

Q2 هل عمرك 18 سنة او أكثر، سعودية الجنسية ، حاليا طالبة في الولايات الامريكية المتحدة وأم على الأقل لطفل واحد؟

☐ نعم

☐ لا

Q3 Do you have any of your children living with you in the USA?

☐ Yes

☐ No

Q3 هل أي من أطفالك يقيمون معك حاليا في الولايات المتحدة الأمريكية؟

☐ نعم

☐ لا

Information seeking behavior, needs and sources

Q4 The following section will ask questions related to information search behavior. Here are the definitions of related terms used in this survey. An **information need** is a problem or a topic that an individual does not have enough knowledge about and needs to know more. An **information source** is where the individual would go to find information related to a problem or an issue (such as searching on Google, asking friends on Facebook, searching in a book, going to the library). The questions will be related to **academic information needs** and **everyday information needs**. Examples of academic information needs include applying to a graduate school, structuring research papers, finding academic articles, or citing references. On the other hand, examples related to everyday information needs include finding information about daycare, housing, transportation, or cultural/ethnic food stores.

Q4

في القسم التالي من الاستبيان سيتم طرح أسئلة تتعلق بطريقة البحث عن المعلومات. فيما يلي تعاريف المصطلحات المستخدمة هو عندما يواجه الفرد موضوع أو مشكلة لا يملك معلومات (**information need**) في هذا الاستبيان. **الاحتياج المعلوماتي** كافية بخصوصها ويحتاج إلى معرفة المزيد عنها.

هي الأماكن التي يذهب إليها الفرد للعثور على معلومات تتعلق بمشكلة ما (**information sources**) **مصادر المعلومات** البحث في Facebook، سؤال المعارف الشخصية على وسائل التواصل الاجتماعي مثل Google، كالبحت عن طريق الكتب، أو الذهاب إلى المكتبة.

الأسئلة التالية ستكون بخصوص البحث عن المعلومات المتعلقة بالاحتياجات الأكاديمية واليومية. من الأمثلة المتعلقة **بالاحتياج المعلوماتي الأكاديمي**: التقديم للحصول على قبول للدراسات العليا، كتابة الأوراق البحثية، البحث عن مقالات أكاديمية، أو طريقة كتابة المراجع العلمية. بينما الأمثلة التي تتعلق **بالاحتياج المعلوماتي اليومي**: البحث عن حضانات الأطفال، المساكن، المواصلات أو أماكن توفر المنتجات الغذائية العربية.

Q5 Back when you first planned to come to the USA or in your early days of being in the USA, what was the most important information that you searched for? (select all that apply)

- ☐ Housing
- ☐ Transportation
- ☐ Academic universities/ colleges
- ☐ English languages centers/institutes
- ☐ Residential area safety
- ☐ Cultural stores (such as ethnic restaurant)
- ☐ Schools for children
- ☐ Daycare
- ☐ Others, please specify _____

Q5

في الأيام أو الفترة الأولى من تواجدك في الولايات المتحدة الأمريكية، ما هي أهم المعلومات التي بحثت عنها الرجاء اختيار كل ما ينطبق

- ☐ معلومات متعلقة بإيجاد مسكن
- ☐ معلومات متعلقة بالمواصلات
- ☐ معلومات متعلقة بالجامعات أو الكليات الأكاديمية
- ☐ معلومات متعلقة بمعاهد أو مراكز اللغة الانجليزية
- ☐ معلومات عن مدى أمان مناطق السكن
- ☐ معلومات متعلقة بالمطاعم أو البقالات العربية
- ☐ معلومات عن مدراس الأطفال
- ☐ معلومات عن حضانات الأطفال
- ☐ أخرى يرجى تحديد ذلك _____

Q6 Which of the following information sources do you use to find information related to your **academic information needs** such as finding a university, writing a research paper, finding articles, or applying to graduate school? (select all that apply)

- ☐ Search engines (such as Google, Bing)
- ☐ Google scholar
- ☐ PubMed
- ☐ Social media networks (such as Facebook, Twitter)
- ☐ Local American traditional media (such as newspapers, Television and Radio)
- ☐ Cultural traditional media (such as Saudi newspapers and Television)
- ☐ Saudi Arabian Cultural Mission (SACM) in the USA
- ☐ Personal connections in Saudi Arabia (such as family and friends)
- ☐ Personal connections in the USA (such as friends and classmates)
- ☐ School officials in the USA (such as international offices, professors)
- ☐ University/college websites in the USA
- ☐ Academic library staff in the USA
- ☐ Academic library resources in the USA
- ☐ Academic library databases in the USA
- ☐ Public library staff in the USA
- ☐ Children's schools, daycare or teachers in the USA
- ☐ Others, please specify _____

Q6

أي من مصادر المعلومات التالية تقومين باستخدامها للعثور على المعلومات المتعلقة باحتياجاتك الأكاديمية مثل البحث عن جامعة أو كتابة ورقة بحثية أو التقديم على الدراسات العليا الرجاء اختيار كل ما ينطبق

- ☐ (Google, Bing) مثل محركات البحث
- ☐ Google scholar موقع
- ☐ PubMed موقع
- ☐ (Facebook, Twitter) مثل مواقع التواصل الاجتماعي
- ☐ وسائل الاعلام المحلية الامريكية مثل الصحف، محطات الراديو، قنوات التلفاز
- ☐ (وسائل الاعلام المحلية السعودية مثل الصحف، قنوات التلفاز
- ☐ الملحقية الثقافية السعودية في امريكا
- ☐ المعارف الشخصية في المملكة العربية السعودية مثل العائلة والاصدقاء
- ☐ المعارف الشخصية في الولايات المتحدة الامريكية مثل العائلة والاصدقاء
- ☐ مسؤولو الجامعة أو الكلية في الولايات المتحدة الامريكية
- ☐ المواقع الالكترونية للجامعات أو الكليات الامريكية
- ☐ موظفو مكتبات الجامعات أو الكليات الامريكية
- ☐ مصادر أو مراجع مكتبات الجامعات أو الكليات الامريكية
- ☐ قواعد بيانات مكتبات الجامعات أو الكليات الامريكية
- ☐ موظفو المكتبات العامة الامريكية
- ☐ مدارس أو حضانات الأطفال أو مدرسو الأطفال في الولايات المتحدة الامريكية
- ☐ أخرى يرجى تحديد ذلك

Q7 What are the top 3 information sources that you **trust** the most for **academic information needs**, and why?

Q7 ما هي أهم ثلاثة مصادر للمعلومات تثقين بها عند البحث عن المعلومات المتعلقة بالاحتياجات الأكاديمية، ولماذا؟

Q8 Did you happen to encounter any difficulties or challenges when you searched for information related to **academic information**?

☐ Yes

☐ No

Q8 هل صادفت أي صعوبات أو تحديات في العثور على معلومات تتعلق بالاحتياجات الأكاديمية؟

☐ نعم

☐ لا

Skip To: Q9 If Did you happen to encounter any difficulties or challenges when you searched for information rela... = Yes

Skip To: Q10 If Did you happen to encounter any difficulties or challenges when you searched for information rela... = No

Q9 Please tell us what type of **academic information** was difficult/challenging to find and why?

Q9 فضلا أخبرينا ما هي المعلومات الأكاديمية التي كان الحصول عليها أكثر صعوبة أو سهولة ولماذا؟

Q10 Which of the following information sources do you use to find information related to your **everyday information needs** such as finding cultural food, childcare, or housing? (select all that apply)

- ☐ Search engines (such as Google, Bing)
- ☐ Google scholar
- ☐ PubMed
- ☐ Social media networks (such as Facebook, Twitter)
- ☐ Local American traditional media (such as newspapers, Television and Radio)
- ☐ Cultural traditional media (such as Saudi newspapers and Television)
- ☐ Saudi Arabian Cultural Mission (SACM) in the USA
- ☐ Personal connections in Saudi Arabia (such as family and friends)
- ☐ Personal connections in the USA (such as friends and classmates)
- ☐ School officials in the USA (such as international offices, professors)
- ☐ University/college websites in the USA
- ☐ Academic library staff in the USA
- ☐ Academic library resources in the USA
- ☐ Academic library databases in the USA
- ☐ Public library staff in the USA
- ☐ Children's schools, daycare or teachers in the USA
- ☐ Others, please specify_____

Q10

اي من مصادر المعلومات التالية تقومين باستخدامها للعثور على المعلومات المتعلقة باحتياجاتك اليومية مثل إيجاد المواد الغذائية العربية، إيجاد حضانات للأطفال، أو إيجاد أماكن للسكن الرجاء اختيار كل ما ينطبق

- ☐ (Google, Bing مثل) محركات البحث
- ☐ Google scholar موقع
- ☐ PubMed موقع
- ☐ (Facebook, Twitter مثل) مواقع التواصل الاجتماعي
- ☐ وسائل الاعلام المحلية الامريكية مثل الصحف، محطات الراديو، قنوات التلفاز
- ☐ وسائل الاعلام المحلية السعودية مثل الصحف، قنوات التلفاز
- ☐ الملحقية الثقافية السعودية في امريكا
- ☐ المعارف الشخصية في المملكة العربية السعودية مثل العائلة والاصدقاء
- ☐ المعارف الشخصية في الولايات المتحدة الامريكية مثل العائلة والأصدقاء
- ☐ مسؤولو الجامعة أو الكلية في الولايات المتحدة الامريكية
- ☐ المواقع الالكترونية للجامعات أو الكليات الامريكية
- ☐ موظفو مكتبات الجامعات أو الكليات الأمريكية الاكاديمية
- ☐ مصادر أو مراجع مكتبات الجامعات أو الكليات الأمريكية الاكاديمية
- ☐ قواعد بيانات مكتبات الجامعات أو الكليات الأمريكية الاكاديمية
- ☐ موظفو المكتبات العامة الأمريكية
- ☐ مدارس أو حضانات الأطفال أو مدرسو الأطفال في الولايات المتحدة الأمريكية
- ☐ أخرى يرجى تحديد ذلك

Q11 What are the top 3 information sources that you **trust** the most for **everyday information needs**, and why?

Q11 ما هي أهم ثلاثة مصادر للمعلومات التي تثقين بها عند البحث عن المعلومات المتعلقة بالاحتياجات اليومية ولماذا؟

Q12 Did you happen to encounter any difficulties or challenges when you searched for information related to **everyday information**?

☐ Yes

☐ No

Q12 هل صادفت أي صعوبات أو تحديات في العثور على معلومات تتعلق بالاحتياجات اليومية؟

☐ نعم

☐ لا

Skip To: Q13 If Did you happen to encounter any difficulties or challenges when you searched for information rela... = Yes

Skip To: End of Block If Did you happen to encounter any difficulties or challenges when you searched for information rela... = No

Q13 Please tell us what type of **everyday information** was difficult/challenging to find and why?

Q13 فضلاً أخبرينا ما هو نوع المعلومات اليومية التي كان الحصول عليها أكثر صعوبة أو سهولة ولماذا؟

Libraries

Q14 What do you use your **academic institution's** library for?

- ☐ Find references
 - ☐ Ask library staff for help
 - ☐ Use the writing center
 - ☐ A place to study
 - ☐ A place to meet friends or classmates
 - ☐ I do not use my institution's library
 - ☐ Others, please specify
-

Q14 هل قمت باستخدام المكتبة الأكاديمية لجامعتك أو كليتك لأي من التالي يرجى اختيار كل ما ينطبق

- ☐ إيجاد المراجع العلمية
 - ☐ طلب المساعدة من موظفي المكتبة لا يجد المعلومات
 - ☐ استخدام مركز خدمات الكتابة للغة الإنجليزية بالمكتبة
 - ☐ مكان للدراسة أو المذاكرة
 - ☐ مكان لمقابلة زملاء الدراسة أو الأصدقاء
 - ☐ لم أقم باستخدام المكتبة الأكاديمية بجامعتي
 - ☐ أخرى يرجى تحديد ذلك
-

Q15 Have you ever gone to a **public library** in the USA?

☐ Yes

☐ No

Q15 هل قد قمت بالذهاب الى مكتبة عامة في الولايات المتحدة الامريكية؟

☐ نعم

☐ لا

Skip To: Q18 If Have you ever gone to a public library in the USA? = No

Q16 How did you learn about public libraries in the USA?

Q16 كيف علمت عن المكتبات العامة في الولايات المتحدة الأمريكية؟

Q17 Can you please tell us briefly how was your experience with public libraries in the USA?_____

Q17 هل يمكن أن نخبرنا بإيجاز كيف كانت تجربتك مع المكتبات العامة في الولايات المتحدة الأمريكية؟

Q18 Are you aware of the services that public libraries provide for children (such as story time or crafts for children)?

☐ Yes

☐ No

Q18 هل أنت على دراية بالخدمات التي تقدمها المكتبات العامة مثل وقت سرد القصص والأعمال الفنية للأطفال؟

☐ نعم

☐ لا

Q19 Have you and your child(ren) attended any public libraries' events before?

☐ Yes

☐ No

Q19 هل قد سبق لك الذهاب الى أي من المكتبات العامة برفقة اطفالك لحضور أحد الفعاليات؟

☐ نعم

☐ لا

Q20 Did you use **any public library** for any of the following? (select all that apply)

☐

Find references

☐

Ask library staff for help

☐

A place to do my academic work

☐

A place to meet friends or classmates

☐

A place where my children play

☐

I did not use any public library

☐

Others, please specify

Q20 هل قمت باستخدام أي من المكتبات العامة في الولايات المتحدة الأمريكية لأي من التالي؟ يرجى اختيار كل ما ينطبق

☐ ايجاد المراجع

☐ طلب المساعدة من موظفي المكتبة العامة لا يجد المعلومات

☐ مكان لعمل الواجبات الدراسية والمذاكرة

☐ مكان لمقابلة زملاء الدراسة أو الاصدقاء

☐ مكان يستطيع اطفالي اللعب وممارسة الأنشطة الترفيهية به

☐ لم أقم باستخدام أي مكتبة عامة في الولايات المتحدة الأمريكية من قبل

☐ أخرى يرجى تحديد ذلك

Social media and sharing behavior

Q21 Please check all social media platforms you **use** (reading/browsing posts by others or generating/sharing content yourself).

If you share any content on social media, write in the text box the type of content you share, and **why** (e.g. sharing personal pictures, nature pictures, videos, audio files, or asking questions.)

If you do not share any content on social media platforms, please leave the text box blank.

- ☐ Facebook, Please indicate the type of information you share on this type of platform, and why _____
- ☐ Twitter, Please indicate the type of information you share on this type of platform, and why _____
- ☐ Instagram, Please indicate the type of information you share on this type of platform, and why _____
- ☐ Snapchat, Please indicate the type of information you share on this type of platform, and why _____
- ☐ Other social media platforms, please specify _____
- ☐ WhatsApp, Please indicate the type of information you share on this type of platform, and why _____
- ☐ Telegram, Please indicate the type of information you share on this type of platform, and why _____
- ☐ LinkedIn, Please indicate the type of information you share on this type of platform, and why _____
- ☐ YouTube, Please indicate the type of information you share on this type of platform, and why _____
- ☐ None

Q21

الرجاء اختيار/تحديد وسائل التواصل الاجتماعي التي تستخدمها اما قراءة وتصفح منشورات الاخرين أو القيام شخصيا بإنشاء أو مشاركة أي محتوى في حال كنت تشاركين أي محتوى على وسائل التواصل الاجتماعي، في مربع النص، يرجى كتابة نوع المحتوى الذي تشاركينه ولماذا

(.مثال :مشاركة الصور الشخصية، صور للطبيعة، مقاطع صوتية أو مرئية، أو طرح بعض الأسئلة)
في حال كنت لا تشاركين أي محتوى على وسائل التواصل الاجتماعي، بإمكانك ترك مربع النص خالي

☐ يرجى كتابة نوع Facebook المحتوى الذي تشاركينه تحديدا على هذه القناة من وسائل التواصل الاجتماعي مع ذكر السبب

☐ يرجى كتابة نوع Twitter المحتوى الذي تشاركينه تحديدا على هذه القناة من وسائل التواصل الاجتماعي مع ذكر السبب

☐ يرجى كتابة نوع Instagram المحتوى الذي تشاركينه تحديدا على هذه القناة من وسائل التواصل الاجتماعي مع ذكر السبب

☐ يرجى كتابة نوع Snapchat المحتوى الذي تشاركينه تحديدا على هذه القناة من وسائل التواصل الاجتماعي مع ذكر السبب

☐ ،وسائل تواصل اجتماعي أخرى يرجى تحديد ذلك

☐ يرجى كتابة نوع WhatsApp المحتوى الذي تشاركينه تحديدا على هذه القناة من وسائل التواصل الاجتماعي مع ذكر السبب

☐ يرجى كتابة نوع Telegram المحتوى الذي تشاركينه تحديدا على هذه القناة من وسائل التواصل الاجتماعي مع ذكر السبب

☐ يرجى كتابة نوع LinkedIn المحتوى الذي تشاركينه تحديدا على هذه القناة من وسائل التواصل الاجتماعي مع ذكر السبب

☐ يرجى كتابة نوع YouTube المحتوى الذي تشاركينه تحديدا على هذه القناة من وسائل التواصل الاجتماعي مع ذكر السبب

☐ لا يوجد

Motherhood Experiences

Q22 During your studies, to what extent did you find it challenging to balance/manage being a student and a mother at the same time in a foreign country?

- ☐ Extremely challenging
- ☐ Very challenging
- ☐ Somewhat challenging
- ☐ Not challenging

Q22 خلال دراستك، إلى أي مدى واجهت صعوبة في إدارة مهامك وتحقيق التوازن كطالبة وأم في نفس الوقت في بلد أجنبي؟

- ☐ واجهت صعوبة بالغة جدا
- ☐ واجهت صعوبة بالغة
- ☐ واجهت صعوبة الى حد ما
- ☐ لم أواجه أي صعوبة

Q23 Related to the previous question: can you please explain more about why you chose this option (such as sharing some reasons, giving an example, or a short story) related to whether or not you experienced any level of challenge.

Q23

بناءً على اجابتك في السؤال السابق، هل يمكنك توضيح المزيد حول سبب اختيارك لهذا الخيار مثل ذكر بعض الأسباب أو قصة قصيرة أو موقف معين مررت به لشرح ما إذا واجهتي أو لم تواجهي أي مستوى من التحديات

Q24 Where would you go to ask for help if you encounter a problem related to your **academic life**? (select all that apply)

- ☐ Family
 - ☐ Friends
 - ☐ Academic advisor in the USA
 - ☐ Classmates in the USA
 - ☐ Social media networks
 - ☐ I would not go anywhere
 - ☐ Others, please specify
-

Q24

الى أين من ممكن ان تذهبي لطلب المساعدة في حال واجهتك مشكلة متعلقة بحياتك الأكاديمية؟ يرجى اختيار كل ما ينطبق

- ☐ العائلة
 - ☐ الأصدقاء
 - ☐ المشرف الدراسي بالجامعة أو الكلية في الولايات المتحدة الأمريكية
 - ☐ زملاء الدراسة في الولايات المتحدة الأمريكية
 - ☐ وسائل التواصل الاجتماعي
 - ☐ لا اذهب لأي أحد أو مكان لطلب المساعدة
 - ☐ أخرى يرجى تحديد ذلك
-

Q25 Where would you go to ask for help if you encounter a problem related to your **everyday life?** (select all that apply)

- ☐ Family
 - ☐ Friends
 - ☐ Academic Advisor in the USA
 - ☐ Classmates in the USA
 - ☐ Social media networks
 - ☐ I would not go anywhere
 - ☐ Others, please specify
-

Q25

الى أين من ممكن ان تذهبي لطلب المساعدة في حال واجهتك مشكلة متعلقة بحياتك اليومية؟ يرجى اختيار كل ما ينطبق

- ☐ العائلة
 - ☐ الأصدقاء
 - ☐ المشرف الدراسي بالجامعة أو الكلية في الولايات المتحدة الأمريكية
 - ☐ زملاء الدراسة في الولايات المتحدة الأمريكية
 - ☐ وسائل التواصل الاجتماعي
 - ☐ لا اذهب لأي أحد أو مكان لطلب المساعدة
 - ☐ أخرى يرجى تحديد ذلك
-

Q26 Have you ever considered dropping out of school and not finishing the degree which you are working on?

☐ Yes

☐ No

Q26 هل سبق لك التفكير في عدم مواصلة الدراسة أو عدم الانتهاء من الدرجة العملية التي تسعى للحصول عليها؟

☐ نعم

☐ لا

Skip To: End of Block If Have you ever considered dropping out of school and not finishing the degree which you are workin... = No

Q27 Please describe what were the most likely reasons that would have led you to feel like dropping out of school? (select all that apply)

- ☐ Hard to manage motherhood and school requirements
- ☐ Family pressure
- ☐ Difficulty of the degree requirements
- ☐ Languages difficulties
- ☐ Lack of emotional support
- ☐ Lack of childcare help
- ☐ Financial issues
- ☐ Others, please specify_____

Q27

يرجى اختيار أو ذكر الأسباب التي أدت الى وجود مثل هذا الشعور لديك بخصوص عدم اتمام الدرجة الدراسية التي تسعى للحصول عليها

- ☐ صعوبة الموازنة بين مهام الامومة ومتطلبات الدراسة
- ☐ ضغوطات من العائلة
- ☐ صعوبة متطلبات الدرجة العلمية
- ☐ صعوبات متعلقة باللغة الانجليزية
- ☐ عدم توفر الدعم النفسي
- ☐ عدم توفر أماكن أو حضانات لرعاية الاطفال
- ☐ صعوبات مالية
- ☐ أخرى يرجى تحديد ذلك _____

Demographic and Background

Q28 The next section of this survey will include some questions related to demographic data. All data will be confidential and there will be no way for us to identify any participant based on her demographic data. Demographic data collected in this survey will be used for research purposes only.

Q28

سيتم تضمين القسم التالي من هذا الاستبيان بعض الأسئلة المتعلقة بالبيانات الديموغرافية. ستكون جميع البيانات سرية ولن تكون هناك طريقة لمعرفة أي مشارك بناءً على أي من هذه البيانات. سيتم استخدام البيانات الديموغرافية التي تم جمعها في هذا الاستبيان لأغراض البحث فقط.

Q29 What is your age group?

- ☐ 18-25
- ☐ 26-30
- ☐ 31-35
- ☐ 36-40
- ☐ 41 or above

Q29 لأي فئة عمرية تنتمي؟

- ☐ 18-25
- ☐ 26-30
- ☐ 31-35
- ☐ 36-40
- ☐ 41 أو أكثر

Q30 How would you assess your level of English proficiency (written and spoken)?

- ☐ Beginner
- ☐ Intermediate
- ☐ Advanced

Q30 كيف تقيمين مستواك الحالي في اللغة الإنجليزية كتابةً وتحدثاً؟

- ☐ مبتدئة
- ☐ متوسطة
- ☐ متقدمة

Q31 What is your current marital status?

- ☐ Married
- ☐ Not married

Q31 ماهي حالتك الاجتماعية حالياً؟

- ☐ متزوجة
- ☐ غير متزوجة

Q32 How many children do you have? (enter a number only please)

Q32 كم لديك من الاطفال؟

Q33 Age of child \${lm://Field/1} (in years or months depending on the child's age)

☐ Year(s) _____

☐ Month(s) _____

Q33 (بالسنوات أو الأشهر حسب عمر الطفل) \${lm://Field/1} عمر الطفل

_____ سنة/سنوات ☐

_____ شهر/أشهر ☐

Q34 Gender of child \${lm://Field/1}

☐ Female

☐ Male

Q34 \${lm://Field/1} جنس الطفل

☐ ذكر

☐ أنثى

Q35 Other than your child(ren), which other family members are currently living with you in your household in the USA? (select all that apply)

☐ Husband

☐ Brother

☐ Father

☐ None

☐ Others, please specify

Q35

بخلاف طفلك أو أطفالك ، من هم أفراد الأسرة الآخرين الذين يعيشون معك حاليًا في الولايات المتحدة الأمريكية؟ الرجاء اختيار كل ما ينطبق

☐ زوج

☐ أخ

☐ أب

☐ لا أحد

☐ أخرى يرجى تحديد ذلك _____

Q36 How long have you been living in the USA? (In years or months depending on your length of stay)

☐

Year(s) _____

☐

Month(s) _____

Q36 منذ متى وأنت تعيشين في الولايات المتحدة الأمريكية بالاشهر أو بالسنوات حسب فترة مكوثك بها؟

☐ عدد الأشهر _____

☐ عدد السنوات _____

Q37 What is the degree you are currently seeking in the USA?

☐ Bachelors

☐ Masters

☐ PhD

☐ Others: please specify _____

Q37 ما هي الدرجة العلمية التي تسعى للحصول عليها حالياً في الولايات المتحدة الأمريكية؟

☐ درجة البكالوريوس

☐ درجة الماجستير

☐ درجة الدكتوراة

☐ أخرى يرجى تحديد ذلك

Q38 What is your field/ major of the study?

Q38 ما هو تخصصك الدراسي؟

Q39 Are you sponsored by any of the following scholarship programs? (select all that apply)

☐ The Saudi government scholarship program

☐ Saudi universities scholarships

☐ Private sector Saudi employers

☐ Self-funded

☐ Scholarship programs in the USA

☐ Others: please specify

Q39 هل أنت برعاية أي من برامج المنح الدراسية التالية؟ الرجاء اختيار كل ما ينطبق

- ☐ برنامج خادم الحرمين الشريفين للابتعاث الخارجي
- ☐ منح الجامعات السعودية
- ☐ منح من القطاع الخاص السعودي
- ☐ عن طريق التمويل الشخصي
- ☐ برامج المنح الدراسية في الولايات المتحدة الأمريكية
- ☐ أخرى يرجى تحديد ذلك _____

Q40 Are you currently employed? (select all that apply)

- ☐ I am employed in a Saudi Arabian entity/organization
- ☐ I am currently employed in the USA
- ☐ I am currently not employed
- ☐ Other: please specify _____

Q40 هل تعملين حالياً؟ يرجى اختيار كل ما ينطبق

- ☐ أنا أعمل في منظمة سعودية
- ☐ أنا حالياً أعمل في الولايات المتحدة الأمريكية
- ☐ لا يوجد لدي عمل حالياً
- ☐ أخرى يرجى تحديد ذلك _____

Q41 After you finish the degree you are currently working on how likely are you to go back to Saudi Arabia?

- ☐ Very likely
- ☐ Somewhat likely
- ☐ Not likely
- ☐ Prefer not to answer

Q41 ما مدى احتمال عودتك إلى المملكة العربية السعودية بعد الانتهاء من الدرجة العملية التي تعملين عليها حالياً؟

- ☐ من المحتمل جداً
- ☐ من المحتمل الى حد ما
- ☐ غير محتمل
- ☐ أفضل عدم الاجابة على هذا السؤال

Q42 Please tell us why you choose this option in the previous question

Q42 الرجاء إخبارنا لماذا اخترت هذا الخيار في السؤال السابق

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