Cross-Cultural Digital Information-Seeking Experiences: The Case of Saudi Arabian Female International Students

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ABSTRACT

The number of Saudi female international students (SFISs) pursuing higher degrees in Western countries has increased dramatically. Many are faced with unusual challenges, especially acting without a male's permission, interacting with males, and using an open, free Internet. This article proposes that SFISs experience a "digital shift" whereby their cultural, educational, and digital backgrounds impact their information-seeking behavior in Australia. The study used a qualitative interpretivist methodology, interviewing a diverse group of SFISs studying in Australia, to better understand this impact on their everyday information needs and use of information sources. Findings indicate that SFISs' imperfect online search skills, exacerbated by English language deficiency, increase their challenges. Recommendations for supporting SFISs are offered for institutions and service providers.

Keywords: digital shift, information-seeking behavior, Saudi female international students

INTRODUCTION

This article aims to add to the limited body of literature on Saudi Arabian female international students' (SFISs') information-seeking behavior (ISB). In 2014–2015,

over 157,000 Saudi students studied abroad in 46 countries (UNESCO, 2014). By 2019, Australia was ranked third most preferred destination , with over 6,200 Saudi students enrolled in Australian universities (Australian DFAT, 2000). The multicultural society and excellent educational system were main reasons SFISs chose Australia over other Western countries (Alqarni, 2011).

Despite the growth in Saudi international students, existing literature on SFISs is scant compared to studies on Saudi male students. Researchers suggest several reasons (Binsahl et al., 2015). First, Saudi women have traditionally been discouraged from studying abroad: They should be "fully committed to [their] family and home" (Lefdahl-Davis & Perrone-McGovern, 2015). Second, international scholarships have only been available to women for the past 10 years through the King Abdullah Scholarship Program (KASP). Third, Saudi females cannot travel overseas without a male guardian, so although a scholarship is available, a woman cannot receive this if her guardian is unable or unwilling to accompany her. Finally, Saudi Arabia's highly gender-segregated culture makes it difficult for male researchers to conduct studies on Saudi female students, who Al-Kahtani et al. (2006, p. 241) termed the "hard-to-reach population."

Existing studies on SFISs mainly focus on academic and social adjustments (Alhazmi & Nyland, 2011, 2013; Lefdahl-Davis & Perrone-McGovern, 2015; Sandekian et al., 2015). However, to date, no research has examined the impact of this transition on their online ISB and social media use. Studies on ISBs of other international students and recent research on international students' cross-cultural challenges have found that many students display ineffective ISBs leading to an inability to fulfil their information needs (Chang & Gomes, 2017; Sin & Kim, 2013; Sin et al., 2011). Hence, researchers have called for more studies on how international students access information during their stay in a host country.

Considering these gaps in ISB research, this article explores the question: How does the transition to Australia impact SFISs' ISB? This article concentrates on both online and offline information seeking and is motivated by two key aspects. First, the principal researcher is an SFIS and has a deep and intimate understanding of the culture, social values, and language of participants. This facilitated her full engagement with the research context and the development of a deeper association with research participants, as proposed by all guides to qualitative research (for example, Denzin & Lincoln, 2017; Hamid, 2013). Second, the increasing numbers of SFISs pursuing overseas studies requires a more profound understanding of these students' needs and the support structures they might require.

LITERATURE REVIEW

Saudi Females and Cultural Norms

All international students face a wide range of ISB challenges resulting from cultural, language, and educational transitions (Hughes, 2013; Liao et al., 2007; Mehra & Bilal, 2007; Sin & Kim, 2013), which become manifest in their ISB while they are in a host country. For SFISs, these challenges are compounded by the large cultural, educational, and digital differences between Saudi Arabia and Australia.

As well as undertaking a geographical transition from one country to another, SFISs encounter a cultural transition (Alanazy, 2013; Alhazmi & Nyland, 2011, 2013; Alqefari, 2015; Alruwaili, 2017; Altamimi, 2014; Lefdahl-Davis & Perrone-McGovern, 2015; Sandekian et al., 2015). Most challenges are attributed to SFISs' cultural background, since Saudi Arabia is a strictly conservative country whose religious and cultural norms are unique in the world.

In Saudi Arabia, Islam and Saudi cultural norms shape people's identity, attitudes, practices, behaviors, and ways of living (Al-Munajjed, 1997). The cultural and the religious influences are hard to distinguish; the Saudi version of Islam has many elements absent in other Islamic nations, suggesting a cultural rather than a religious tradition (Al-Qahtani, 2015). However, although this form of Islam is the state's religion and often strictly policed, many Saudis dispute these ultra-conservative rules and adopt a more liberal, moderate version of Islam (Al-Qahtani, 2015), particularly in the Western regions bordering the Red Sea, where Mecca (Makkah) and Medina (Madinah) are located. The North and Central regions, including Riyadh (the capital) are more conservative. However, none of the regions are totally homogeneous, and families differ on the liberal-conservative continuum everywhere.

Saudi women are expected to avoid talking to unrelated males. To ensure that male–female interactions are kept to a minimum, a gender segregation policy is strictly enforced (Alhazmi & Nyland, 2013) "to avoid the occurrence of adultery and prevent other men from encroaching on the male honour of the family" (Al-Munajjed, 1997, p. 34). In addition, women are not expected to discuss sensitive issues like politics or sex topics (Al-Zahrani, 2010), except with close friends or family, preferably using offline channels when sharing. Interaction between males and females beyond the immediate family is seen as an "erosion" of a family's reputation (Oshan, 2007), which has more serious consequences for women than for men (Almakrami, 2015). Women are protected from other men by a *mahram* (a closely related male guardian—husband, father, brother, or even son). The mahram's permission is needed for nearly all activities. Importantly for this study, women leaving Saudi Arabia must be accompanied by their mahram (Al-Kahtani et al., 2006; Hall, 2013; Human Rights Watch, 2016; Raghaven, 2017). This means they need a close male relative who has the time and inclination to leave his home and workplace for several years.

The Gender Gap

The *Global Gender Gap Report*, published annually by the World Economic Forum, is 'a compass to track progess on relative gaps between women and men on health, education, economy and politics' (WEF, 2020, p.4). Findings are reached by integrating statistics from international organisations and surveys. Saudi Arabia is ranked 146th out of 153 countries, compared with Australia's rank of 44th. This seems surprising, since the report shows that Saudi's education rating is 0.983 (1.00 is equity), and health and survival in Saudi Arabia is almost the same as in Australia (0.963 and 0.971 respectively). The high education rating is due to major policy changes in girls' and women's education over the past decade and to the introduction

of KASP, available to female students since 2005. However, the ratings for gender equity in the categories Political Empowerment (Saudi Arabia: 0.077; Australia: 0.231) and Economic Participation and Opportunity (Saudi Arabia is close to the bottom with 0.375, versus Australia's 0.722) show why Saudi Arabia ranks so low. For example, only since 2013 have women had seats on advisory councils (Fox News 2013), and since 2015 been granted the right to vote in municipal elections and run as candidates (*Freedom House,* 2016).

A Collectivist Culture

The results of the 2017 *Global Gender Gap Report* can be matched against Hofstede's (1991) cultural dimensions theory, which distinguishes between what Hofstede calls "collectivist" and "individualist" cultures as measured by the indices of his model.
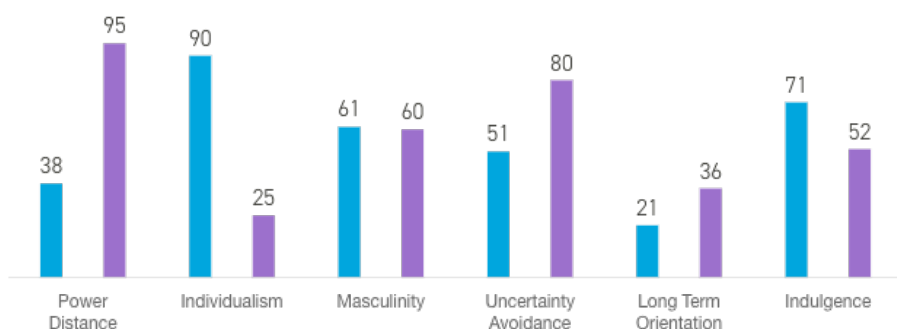
Figure 1: Comparison of Cultural Markers Between Saudi Arabia and Australia

The difference in power distance scores shows the hierarchical nature of Saudi's culture. Al-Saif (2013) noted that despite the changes in educational policy, universities and courses open to women were severely limited. Alwedinani's (2016) and Alsuwaida's (2016) more recent research confirm that little change has occurred since Al-Saif's (2013) conclusions. Moreover, Saudi pedagogy relies on teacher-centered teaching, requiring students to memorize textbooks and recall the text in class and for examinations (Hamdan, 2005). Students arriving in Australia find they must conduct their own research and contribute ideas in seminars and tutorials (Gray et al., 2010) while in close proximity to male students. Thus, SFISs are further challenged by an unfamiliar individualistic learning and lifestyle culture (Shepherd & Rane, 2012).

Saudi Females and the Digital Experience

SFISs experience another unique transitional challenge: a major change to their internet use, a "digital shift" (Binsahl et al., 2015). Internet access in Saudi Arabia

became available some years later than in Western countries, indeed later than in other Gulf nations (Al-Kahtani et al., 2006). Given the free and open nature of the Internet (Vie, 2008), thousands of sites have been censored (400,000 by 2004; Albugami & Ahmed, 2016) to "protect the values and culture espoused by Muslims" (Albugami & Ahmed, 2016, p. 25) and generally prevent access to "undesirable" material (Al-Saggaf & Begg, 2004), including posts related to religion (especially non-Islamic), human rights, pornography, drugs, Western media, and "content related to Israel and the Jews" (Danielewicz-Betz, 2013, p. 218). Even medical sites with content related to private body parts are illegal. Attempting to access any "forbidden" site generates an automatic warning (Figure 2).

Figure 2: Automatic Arabic Warning Page on "Forbidden" Sites

Additionally, in contrast to Western students (Jones & Madden, 2002; Lenhart et al., 2001), online educational facilities are not in general use in Saudi Arabia schools, despite massive government funding and encouragement (Harden & Al Beayeyz, 2012). Albugami and Ahmed (2016) expressed their concern that Saudi Arabian schools "still [lagged] behind those countries that lead the world in education, particularly concerning ICT" (p. 37), and a year later that "Saudi schools are technically, politically and culturally unprepared for a 'change paradigm'" (Albugami & Ahmed, 2016, p. 27).

Thus Saudi students new to Australia are plunged, unprepared and floundering, into the flood of online information produced by educational institutions (Alzougool et al., 2013; Binsahl & Chang, 2012; Binsahl et al., 2015; Gray et al., 2010). As members of a collectivist culture, Saudis rely on close family and friends for decision-making and information. Unfortunately, Australian educators assume that Saudi students are as able as other international students to use the Internet. As well, social media sites present a problem for conservative Saudi internationals (Al-Saggaf et al., 2008), since the open nature of social media sites means that any message can be

passed rapidly, soon reaching millions. In Saudi Arabia, some social media sites are blocked from time to time, and those that remain open have limitations (Jamjoom, 2013). As recently as 2017, content on the popular medium Snapchat was blocked (Sika, 2017), and although the ban on other sites (especially Skype and WhatsApp) has been lifted, these are monitored and censored (Reuters, 2017).

International Students' Information-Seeking Challenges

Considering these unique cultural norms, we assumed that the transition to Australia, known for its advanced, free and open digital environment, would strongly affect the way SFISs seek information. Recently, there has been considerable literature covering the various cultural, social, educational, and information-seeking challenges that international students face in their transition to a new environment (e.g., Alhazmi & Nyland, 2011, 2013; Chang & Gomes, 2017; Neri & Ville, 2008; Sin, 2015; Sin & Kim, 2013; Sin et al., 2011). Prior to and following their arrival in a host country, international students encounter a wide range of information needs: academic, such as university or course information, and non-academic information (termed "everyday life information seeking" [ELIS] by Savolainen, 1995) on shopping, finance, accommodation, health, legal information, and so on. Indeed, failure to fulfill ELIS information needs can sometimes generate more cross-cultural adaptation challenges than difficulties with academic information seeking (Alzougool et al., 2013; Sin & Kim, 2013).

To help international students, Australian educational and government institutions have established offline and online information portals, such as the Study Melbourne website set up by the Council of Australian Governments (2010). In addition, librarians, health and accommodation providers, counseling services, and other service providers have explored the potential of social media sites such as Facebook and Twitter to reach out to new international students (Alzougool et al., 2013; Chang & Gomes, 2017).

However, despite these platforms, studies indicate that international students do not use them when seeking information (Alzougool et al., 2013; Chang & Gomes, 2017). The ineffective use of these information sources is attributed to educators not understanding how international students seek and use information (Alzougool et al., 2013; Chang et al., 2012). More investigation is needed to examine how international students seek and access knowledge, and specifically the ISBs of SFISs, so that service providers can more appropriately engage students, and help them adjust to new environments.

METHOD

Research Design

The aim of this study was to improve understanding of SFISs' information needs and how they seek knowledge in an unfamiliar culture. We employed interpretative qualitative research design to allow what Jankowski and Wester (1991, p. 52) called an "empathetic understanding of the meaning that people give to their actions."

Following Creswell (2007), we chose one-on-one unstructured and semistructured interviews as the optimum method to better understand SFISs' perceptions and intentional behaviors as they negotiated new methods and sources of information and knowledge.

To minimize bias, we followed the advice and precepts of six scholars. We adopted interpretivism and qualitative methodology following Kant's (2014) recommendations. We performed detailed interviews and consultations with participants to ensure correct data collection, within the research limitations, following Dharamsi and Charles (2011) and Miles and Huberman (1994) respectively. We presented a conference paper, conducted seminars, and discussed with colleagues for invaluable feedback and external validation (Guba & Lincoln, 1994). By following the above advice, we have achieved credibility and trustworthiness, reduce biasd, and provided reliability and validity (Peräkylä; 2016; Yin, 2015).

We chose one-on-one semi-structured interviews as the optimum method (Creswell, 2007) to better understand SFISs' perceptions and intentional behaviors as they negotiated new methods and sources of information and knowledge. The principal author's familiarity with the SFIS phenomenon under observation was an advantage when recruiting and interviewing the participants.

Participants

From June to December 2015 (following ethics approval), we used personal contacts, social media, the Melbourne Saudi Women's Club, and snowballing to recruit 13 SFISs from Melbourne universities and language centers. All had been living in Australia for less than a year at the time of the study (Table 1).

Table 1: Participants' Demographic Information (*N* = 13)

Code	Age	Marital status	Saudi Arabia region	English (self-rated)	Funding	Discipline	Study level
P1	26	M, C	Hijaz	Avg	KASP	Social studies	ELICOS*
P2	30	S	Hijaz	Avg	KASP	Business	ELICOS
P3	28	M, NC	South	Good	KASP	Arts	ELICOS
P4	28	M, C	Hijaz	Very good	KASP	Information security	ELICOS
P5	25	S	North	Avg	KASP	Computer science	Postgrad
P6	37	M, C	Hijaz	Avg	University	Business	ELICOS
P7	24	M, C	Hijaz	Good	KASP	Computer science	Postgrad
P8	30	M, C	Najd	Avg	KASP	Computer science	ELICOS
P9	34	M, C	Najd	Good	University	Information systems	Postgrad

P10	30	S	Hijaz	Very good	Workplace	Health	Postgrad
P11	21	S	Hijaz	Very good	Self-funded	Psychology	Undergrad
P12	31	M, C	North	Good	KASP	Media	Undergrad
P13	27	S	North	Avg	University	Physiotherapy	ELICOS

Note. Marital status: M = married, NC = no children, C = children, S = single. Study level: ELICOS = English Language Intensive Course for Overseas Students for students who do not have the requisite IELTS [International English Language Testing System] scores for university entry.

Marital status is important: Married SFISs need information related to husbands and children, while single SFISs might need information related to male guardians (e.g., brother or father). Region is also important, since (as in many countries) residents from different regions display regional differences (Al-Qahtani, 2015; Alqefari, 2015; Oshan, 2007), which may impact individuals' ISB. English levels are also likely to lead to different information-seeking activities.

Data Analysis

Each participant signed a consent form and read the Plain Language Statement. Most interviews were conducted in Arabic and lasted approximately 60 minutes. We asked participants about their information needs, key information sources and information seeking activities, and how their transition to Australia impacted their ISB. Other questions emerging during the discussion were used to clarify or add additional information. We audio-recorded interviews, transcribed them verbatim, and returned to the interviewees to check their answers. We analyzed transcriptions and coded them manually using content analysis (Creswell, 2007) to reveal and classify themes from the open-ended responses.

We used Corbin and Strauss's (2008) process to classify responses into three main themes: academic needs, information needs related to accompanying family members, and cultural adjustments.

RESULTS

First, when asked why they were studying abroad, P5 summed up the most common response: "The main goal…is just to get a degree and return to Saudi to help in my country's development."

Theme 1: Information Needs Related to Academic Study

Three interviewees (P4, P6, and P10) sought academic information before coming to Australia. Once in Australia, all participants identified important study information, divided into two subthemes.

Subtheme 1: Information Related to Course Completion

Twelve students sought course-related information on their arrival in Australia (and continued throughout the year). Ten students said the most important was finding information on improving their English and completing their assignments:

> Since I started my English course, I searched and still search for information on improving my fluency: vital if I am to finish ELICOS and start University. —P1

SFISs preferred social networks (close friends by word-of-mouth, or via Melbourne Saudi Club's Twitter account). Google and YouTube were the most trusted online information sources for general and course-specific academic information, especially when seeking information to improve their English:

> Whenever I need advice on how to accomplish an assignment or improve my English skills, I just send my questions to Saudi students on Twitter. They speak my own language so it's the best to help improve my English. Or I search YouTube. —P5

When asked about Australian sources, 90% reported they accessed their institution's websites only to check timetables, class locations, and assignment submissions. None used them for information about any other services. The main obstacles to using Australian sources were (a) limited English competency (77%), (b) unaware of the institution's online and offline services (69%), and (c) the availability of Arabic sources (55%).

Two participants (P3 and P8) reported infrequent visits to their institutional libraries to borrow books for their IELTS assessment. P3 preferred the IELTS exercises in books; they were "more efficient than those online." But P5 disagreed:

> I prefer…online because [Saudis] don't like reading books, unlike Australians who read extensively. I've never used the library and don't know how to look for or borrow books. Google is my favorite.

SFISs who professed advanced English levels (P3, P4, P10, and P11) preferred face-to-face interactions. Interestingly, P4, P10, and P11 were the only ones who found accessing daily information (ELIS) more difficult than academic information:

> For academic information I prefer face-to-face [with an expert], or email when I can't find an expert on campus…Everyday information is more difficult to find: it's difficult to trust people's answers—I keep searching until I'm confident I have the right answer. Google and social media are the most convenient sources. —P10

Apart from the above three, participants said that finding academic information was "more challenging" than finding ELIS. The majority identified their limited English as an obstacle in gathering academic information, whether online and personal:

Finding academic information is hard. For everyday information I can simply Google or ask friends in Arabic, but for academic information, you need good English—mine is average. —P1

Seven participants attributed their limited search skills to the Saudi educational system:

Unlike Saudi where all academic materials are given to us by our teacher, here I have to depend on myself and do a lot of searching for everything, from class timetables to assignment structures. —P5

Subtheme 2: Information on Administrative, Scholarship, and Finance Matters

Administrative Concerns. All participants reported that concerns about getting university offers were due to their limited English skills and the recent Ministry of Higher Education policy change preventing scholarship students from applying through educational agents. P6 commented:

Our SACM [Saudi Arabian Cultural Mission] informed us that Saudi Arabian students who want to be issued a financial guarantee can't get it if they apply to Australian universities through an agent. This new policy makes it harder especially with limited English. I think our embassy needs to revisit their policy.

Scholarship Concerns. Five participants reported different scholarship inquiries. The major concern of P2, P6, and P8 was information related to scholarship extension—they were unable to finish their ELICOS course as detailed in their scholarship offer. P9 sought information on obtaining a financial guarantee, a precondition to finalizing study confirmation. P11 needed to apply for transferring from being a self-funded to a KASP-sponsored student.

For scholarship information, the most cited sources were friends, the Mubtaath forum (a Saudi website aiming to help new students), and emailing or calling their embassy's supervisors. They said SACM did not fully answer the questions, and used a "one size fits all" approach. They only accessed the SACM website to check the progress of their applications on Safeer (Saudi website to enable Saudi international students to submit applications, etc., and to receive scholarship bursaries).

Education-Related Financial Concerns. Recently arrived SFISs must create an online scholarship account on Safeer. All participants said that the first information they sought was about opening their Safeer accounts. This was challenging: First, living in hostels, they had limited Iinternet access and costs were high; second, they needed good English. Saudi Club Twitter was useful:

First thing I did after arriving in Australia was getting a SIM card that had Internet. Then…I had to get a bank account to register my file at SACM…Saudi Club Twitter was very helpful. —P9

Theme 2: Information Needs Related to Accompanying Family Members

Subtheme 1: Information Related to a Mahram

The second most needed information was information related to their mahram (husband, father, or brother—P4, P5, and P6) or their children (P1, P4, P6, P7, P8, and P9).

> When I got the scholarship, I didn't pick a university for myself, I picked a university for [my husband] … [so he could] get a good job when we returned. It was very important to me that he did better than me, as he sacrificed his time to come here as my companion… I used the Mubtaath forum to get information for this. —P6

Despite many online and offline information searches, P4 could not find an answer to her inquiry about her husband's study and visa status:

> [These] were the hardest to get answers for…SACM didn't answer at all. I surfed the Australian immigration website but couldn't find any concrete answers—everyone gave their answers based on their own experience, which differed from mine.

Asked how they applied for their student visas prior to arrival, participants with good English applied for visas without help, but the other nine relied on either their husbands or educational agents. Regardless of English levels, participants described visa information as "sensitive," and "challenging" due to difficulty in finding a trustworthy, easy-to-understand source. Many did not know that the immigration multilingual service provides over-the-phone interpreters:

> With my low-level English, it was difficult to check the Australian immigration website. I didn't know where I could ask. But eventually I found I could go to the immigration building and ask for an interpreter. —P5

Subtheme 2: Information Related to Children

This was cited as a major concern for mothers both before and after their arrival. Finding childcare was very difficult: long waiting lists and high fees (childcare services were not funded by the Saudi government). For information, SFISs used both online (Google, the Mubtaath forum, Instagram, and Melbourne Saudi Club) and offline sources (friends, visits to childcare centers). P8 realized too late that relying on Arabic sources was unsafe:

> I looked online for childcare…before traveling to Australia, and found a carer for my six-month old son. We didn't know that places should be certified. I discovered the carer had been hitting him—I couldn't do anything because she was uncertified.

P4, P6, P8, and P12, who had school-aged children, cited difficulties finding Arabic schools so that their children could retain their Islamic identity and be at a suitable level in Arabic and Quran on return to Saudi Arabia.

Theme 3: Cultural Adjustments

Interviewees expressed several information-seeking concerns while adjusting to Australia's individualistic, mixed-gender, and digital environments. In Saudi Arabia, males conduct many tasks including money matters, transportation, and finding information. In Australia, SFIS were forced to take the lead:

As a female in Saudi Arabia, anything I needed was a duty to be fulfilled by my family. In Australia the situation is different, as everyone here has to rely on herself. —P1

Once I had a problem with my academic progress…. so the ELICOS coordinator called me in for a meeting. I went accompanied by my husband, who talked on my behalf, as we are used to. The coordinator kept telling me that here I have to speak for myself, and not to bring my husband with me again. —P8

Men from gender-mixed environments are used to communicating with women, but [for Saudis] males and females being face-to-face is very challenging…in Saudi culture when a Saudi woman talks with a strange Saudi man he may think that she is forward and wants to have a relationship with him. —P6

Looking for accommodation, P6 felt lost and depressed upon arrival:

The Australian rental system is very challenging: we didn't know that we should go online to find available properties then arrange inspection times…It is completely different in Saudi.

Some teachers assumed high digital literacy levels:

When I started my English course I had to initiate by sending an email…I didn't know how to do it. —P12

Even P4, P5, P7, and P9, who had an IT background and originally described themselves as "expert and confident in using technology," were challenged when seeking information through Australian sources. P5's information technology background was "inadequate":

Even though I know about tricky technical stuff such as programming languages, when it comes to searching English sources it's challenging…I spend ages translating content into Arabic. [I search] Australian sources last, after an Arabic search, or asking friends.

DISCUSSION

We assumed that the collectivist culture of Saudi Arabia would impact SFISs' ISB in that they would prefer to seek word-of-mouth information from Saudis before accessing online sources. The study confirmed this statement: For information, participants preferred turning to Saudi students who had been living in Australia for some time, rather than referring to official Arabic (SACM) and English (university) online sources that were specifically designed for these students in mind. As a result, many were unaware of the many areas of help available.

SFISs with family members faced specific information difficulties. Most married women relied on friends for information about childcare and schools for children, and study offers and visas for mahrams. Six of the seven SFIS mothers said that finding childcare was a priority, but unfortunately it was really challenging because of long waiting lists and associated costs. They were also concerned about their children's Islamic identity, which drove them to search for information about Islamic or gender-segregated schools. These findings are in contrast to previous studies, mainly on Chinese international students (e.g., Gu et al., 2010) whose concerns are predominantly financial.

We confirmed the findings of Alzougool et al. (2013) and Chang and Gomes (2017): SFISs tend to rely more on Saudi Arabian social media and social networks than on Australian sources. Participants' reasons for not using Australian sources included low English level, ignorance of offline and online services provided by Australian providers (including an interpreter), and the convenience and availability of familiar Arabic sources. Chang and Gomes (2017, p. 311) argued: "If students are able to find the information they are looking for in 'home sources,' they are likely to be satisfied with that despite any perceived risk of relevance or reliability." This "satisficing behavior" is confirmed by P8 who discovered, too late, that the information on childcare she had obtained from an Arabic source was completely unreliable.

Finally, transitioning to the gender-mixed Australian environment challenged SFISs' tendency to avoid seeking help in the presence of males, especially Saudi males. These interactions had three particular features. First, married and older SFISs were less likely to talk to Saudi males than single and younger SFISs. Second, most SFISs from Hijazi families reported fewer concerns about talking to Saudi males than those from more conservative families mainly from the Northern area (cf. Alqefari, 2015; Al-Saggaf, 2016). Third, all emphasized that conversations with men should be restricted to academic and general questions, and only take place in the classroom; this restricted SFISs' face-to-face information-seeking activities and immediate access to information from external sources.

CONCLUSION

Although many studies have been conducted in the past to examine the ISB of international students, practically all are limited to Asian students. Results of our study confirm that their findings cannot be generalized to students from a completely different culture. The purpose of this study was to better understand the ISB of SFISs

while in Australia, because they form a culturally and digitally unique group. Although the sample of the study was small, the study came up with interesting findings that add significantly to knowledge about how SFIS seek information. Below are the conclusions of the study.

- The transition to a country like Australia, with a cultural environment almost completely incompatible with their own, has been identified as challenging SFISs' ISB.

- SFISs find a digital environment that affects their adaptation as they face ISB challenges.

- Overall, the major challenges are due to Saudi Arabia's collectivist culture, its constricting views on women, and the students' unfamiliarity with the innovative information resources common in Australia.

- To overcome the cultural and digital challenges, SFISs rely, often unsatisfactorily, on Saudi Arabia's digital and traditional information sources.

Recommendations

The authors suggest:

- Provide "pre-travel orientation sessions" designed by Saudi decision-makers to prepare new SFIS for their cultural transition.

- Design Australian ELICOS programs to improve SFISs' digital literacy and online search skills.

- Where possible, separate newly arrived Saudi Arabian females from males when forming study groups, until females get used to mixed-gender classes.

- Institutions should create understandable online and offline promotions of services (e.g., interpreters, finding accommodation).

- Academic staff should bear in mind that SFISs are shy to seek help due to different cultural norms, language deficiencies, or the presence of Saudi males.

Limitations

Despite rich data resulting from this study, the research has some limitations:

- The study sample of 13 was small. However, in exploratory studies, a small number of participants is common (several studies published in JIS have fewer than fifteen participants).

- The data were not intended to be tested through statistical procedures for measuring significant differences in the study variables.

- The study focused on Saudi females studying in Australia; findings may not be applicable to SFISs in other countries or generalized to other contexts.

- The study was conducted with first-year SFISs; the authors did not explore any SFIS ISB changes in further years or upon returning home.

Future Research

Future research could address the limitations:

- Perform studies with larger samples, using statistical sampling principles collecting quantitative data.

- Include international female students from other conservative countries (e.g., other Arab countries or Pakistan) or include Saudi females in universities across the world.

- Investigate the perspectives of interested parties (e.g., husbands, SACM, or ELICOS staff).

- Explore any changes SFIS may experience in their ISB in a longitudinal study over longer periods of time in a host country followed by their return to Saudi Arabia.

- Include international Saudi male students to explore whether gender differences impact study outcomes.

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