BARRIERS TO UNDER-UTILIZATION OF CERVICAL CANCER SCREENING SERVICES AND PRACTICES AMONG ASIAN IMMIGRANT WOMEN IN CANADA: A REVIEW OF LITERATURE

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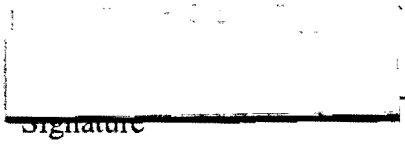

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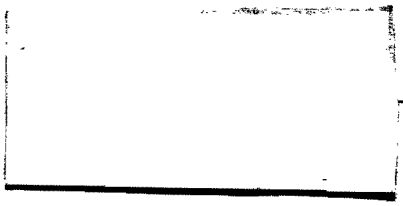

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ABSTRACT

This paper was among the first to critically examine literature on factors that impede Southeast Asian immigrant women's access and utilization of cervical cancer screening services. 46 articles examining Southeast Asian women and their utilization of Pap testing were analyzed using the core concepts of the Health Belief Model. Individual perceptions, (i.e. Asian cultural beliefs and traditions), and cues to action (i.e. physician recommendations) were most influencing on Southeast Asian immigrant women's participation of cervical cancer screening services. Proposed recommendations from reviewed literature were examined, addressing solutions that can potentially minimize these factors. Providing Asian immigrant women with culturally and linguistically appropriate education materials, and increased physician education were the most frequent recommendations proposed in the literature. More field research is needed in this area, including the development of culturally-sensitive interventions and strategies for enhancing Southeast Asian women's participation in cervical cancer screening.

Key words:

Southeast Asian immigrant women; cervical cancer screening; Health Belief Model; Canada

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1.0 INTRODUCTION

Cervical cancer is the 2nd leading cause of mortality among women worldwide. In Canada, it accounts for 1.2% (or 390) of all cancer deaths per year (Public Health Agency of Canada, 2009). The etiology of the disease is still unknown, so its management and control focuses on secondary prevention (i.e. cervical cancer screening). However, utilization of screening services is suboptimal, particularly among immigrant women in high-income countries like Canada that offer organized cervical cancer screening programs. The purpose of this paper is to critically examine published literature regarding contributing factors to the underutilization of cervical cancer screening among Southeast Asian (SEA) immigrant women in Canada. The Health Belief Model (HBM), in identifying factors that influence SEA women's active participation in cervical cancer screening, guides the review. The paper also examines proposed strategies in the literature and recommends a few culturally-sensitive strategies to enhance SEA women's participation in cervical cancer screening programs.

In 2002, there were approximately 493,000 new cases of cervical cancer and 270,000 deaths worldwide (HPVinfo, 2007; Parkin, Bray, Ferlay, & Pisani, 2005). However, in developed countries like Canada, cervical cancer incidence and mortality rates have been dropping steadily mainly due to the introduction and utilization of cervical screening programs, see Figure 1 (Public Health Agency Canada, 2009; Yu, Kim, Chen, & Brintnall, 2001).

According to the Canadian Cancer Society (2010), mortality rates from cervical cancer have declined 3.4% annually between 1997 and 2006. Projected statistics for 2011 suggest that there will be a total of 1,272 new cases of cervical cancer, and of those, 351 women will die (Canadian Cancer Society, 2010).

Figure 1: Age standardized incidence and mortality rates of women with cervical cancer, Canada, 1972-2004

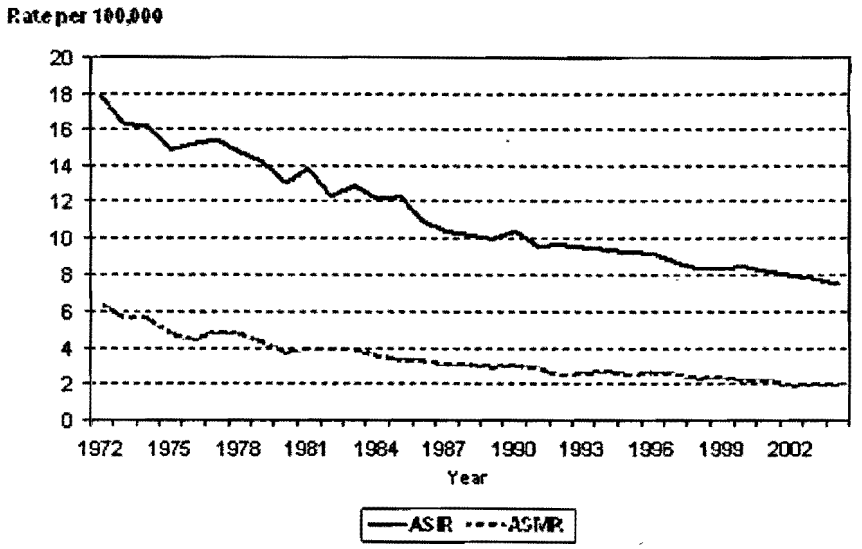

Fig. 1. Reproduced from Public Health Agency Canada, 2009.

Cervical cancer begins in the cells of the cervix. There are two types of cells on the cervix's surface: squamous and columnar, and most cervical cancers develop from squamous cells (Public Health Agency Canada, 2009). The initial stages begin when the cells of the cervix start to change and become abnormal or precancerous. These precancerous changes are called cervical dysplasia (Canadian Cancer Society, 2010). Cervical cancer can take years to develop from its precancerous stage because the symptoms often mimic so many other ailments, such as heavy discharge, abnormal vaginal bleeding, pelvic pain, and pain during urination, and hence go unnoticed. Women usually show severe symptoms when the cancer has proliferated throughout the body to other organs such as the bladder, intestines, lungs, and liver (Public Health Agency Canada, 2009). Precancerous stages do not always develop into cervical cancer if it is detected and treated early enough in its progression. A Pap smear, a process that will be described further below, normally detects the precancerous stage. Almost all cervical cancers are strongly

associated with human papilloma virus (HPV) which commonly spreads through sexual intercourse (Cancer Care Ontario, 2011; Public Health Agency Canada, 2009). Further details of this virus will not be discussed, as this paper does not have a scientific focus. The risk factors for cervical cancer include, but are not limited to: having sex at an early age; having multiple sex partners; having sexual partners who have multiple sex partners; having a weakened immune system; and having limited financial resources for those countries that do not have universal healthcare (Public Health Agency Canada, 2009). In addition, it has been found that most cervical cancer (approximately 67%) occurs in women aged 30-59; however, this does not mean that women younger or older than this age range are not at risk (Public Health Agency, 2009).

Cervical cancer is curable when detected early enough. Generally, cervical cancer is one of the most preventable cancers if the screening methods are implemented correctly and effectively (Cancer Care Ontario, 2011; Centers for Disease Control and Prevention, 2010). Not being able to detect cervical cancer at an early stage is very costly because the yearly overall cost of women suffering from cervical cancer and deaths in Canada has been estimated to be up to $270 billion (HPVinfo, 2007). Hence, cervical cancer involves considerable expenses to society not only in terms of healthcare dollars, but also the loss of human productivity associated with inability/impaired ability to work, and the loss of economic productivity because of premature death.

Several studies have suggested that Papanicolaou (Pap) smear screening is one of the most effective methods at detecting the onset and reducing the incidence and mortality rates of cervical cancer (Canadian Cancer Society, 2010; Lee, Parsons, & Gentleman, 1998; Parboosingh, Anderson, Clarke, Inhaber, Kaegi, Mills, Mao, Root, Stuart, & Stachenko, 1996; Public Health Agency Canada, 2009). When a woman goes for a Pap smear, the woman

> ...will lie on a table and place [her] feet in stirrups to position [her] pelvis for examination. The healthcare provider will insert an instrument called a *speculum* into the vagina and open it slightly to see inside the vaginal canal. The healthcare provider will take a sample of cells from the outside and just inside the opening of the cervix by gently scraping the outside of the cervix with a wooden or plastic spatula, then inserting a small brush called a *cytobrush* that looks like a pipe cleaner into the canal. The cells are placed on a glass slide, or put in a bottle containing a preservative, and then sent to the lab for examination. (PubMed Health, 2010)

When undergoing a Pap smear, some women may experience feelings of discomfort and pressure, and may even bleed a little after the screening (PubMed Health, 2010). According to some women, especially the more conservative ones, the Pap smear screening process is quite an invasive procedure to a woman's body because the procedure requires "foreign" objects to be inserted inside the body through the vagina. Though it may be considered as invasive, Pap smear screening is still the most effective prevention method for cervical cancer because it can determine if there is any early abnormal development or precancerous changes occurring within the cervical canal.

It is important to note that different provinces in Canada have different screening guidelines for cervical cancer. Presently, all provinces in Canada have cervical cancer screening guidelines, except for New Brunswick, Prince Edward Island, Newfoundland and Labrador (Public Health Agency Canada, 2009). For the provinces that do have screening guidelines, it is generally recommended that women should start getting Pap smears within the first 3 years of becoming sexually active or by the age of 20 to 21 for non-sexually active women, and continue to go for Pap smears every 1 to 3 years even if they have stopped having sex (Canadian Cancer Society, 2010; CDC, 2010; Public Health Agency Canada, 2009). Unfortunately, many women do not get tested – up to 50% of Canadian women with cervical cancer did not go for an annual

Pap test (Public Health Agency Canada, 2009). Canadian studies have also found that approximately 60% of cervical cancer cases occur in women who have not been screened within the last three years (HPVinfo, 2007). These vulnerable women tend to include women over 50 years of age, women of low income or low literacy, Aboriginals and newcomers to Canada (Cancer Care Ontario, 2011).

Among this group of vulnerable women, immigrant women continue to underutilize cervical cancer screening in comparison to the native-born Canadian women. The health of immigrants is an important concern to the Canadian government and Canadian society because they are a main contributing source to the economy, since population growth has been largely driven by immigration. Presently in Canada, immigrants account for almost 20% of the total population. Between 2001 and 2006, approximately 1,110,000 immigrants arrived in Canada, which has made up more than two thirds (69%) of the population growth (Statistics Canada, 2007).

Immigrants, particularly women, often face many hardships, (i.e. precarious employment, underemployment, unemployment, social isolation due to unfamiliarity of the new society, mental health problems, etc.) throughout the migration process, which can be detrimental to their health (Murty, 1998). A phenomenon, known as the 'healthy immigrant effect' states that immigrants are initially healthier than the native-born, but their health begins to deteriorate following immigration (Gushulak, 2007). This is believed to be a result of lifestyle changes, a combination of behavioural and environmental changes, such as the change in diet, activity level and lack of/limited use of medical services (Gushulak, 2007). Immigrant women in Canada are exhibiting this phenomenon, where they display noticeably lower rates of Pap testing compared to Canadian-born women (Lofters, Glazier, Agha, Creatore, & Moineddin, 2007; McDonald &

Kennedy, 2007). Lofters *et al.* (2007) examined the Physicians' Claims Database for Toronto, Ontario, to identify Pap smear use over a three-year period, from 2000-2002 inclusive. They found that Pap smear screening was significantly low in the "areas [of Toronto] with high levels of recent immigration, non-official home language, and visible minorities" (Lofters et al., 2007, p. 539). As Toronto is one of the highest immigrant-receiving cities in Canada and is also one of the most diverse urban areas in the world, this study is quite representative of relevant cervical screening rates and attitudes of immigrant women toward this screening process. Clearly, it is crucial to address the healthcare needs of immigrant women when planning for health/social programs.

Recent Canadian census data suggested that Asian immigrants contribute to more than half of newcomers (i.e. 58.3%) (Statistics Canada, 2007). Despite the continual increase of Asian population in Canada, they still remain poorly understood, largely invisible and neglected, and so, their health problems and needs receive little to no attention (Chilton, Gor, Hajek, & Jones, 2005). There is an urgent need to understand how cervical cancer affects Asian immigrant women in Canada and the underlying factors that contribute to underutilization of cervical screening programs in this population because individuals of Southeastern descent constitute one of the fastest growing minority groups in Canada.

Cervical cancer disproportionately affects Asian women, and is reported to be one of the most common cancers among Asian women living in North America (Hou & Lessick, 2002; Xiong, Murphy, Mathews, Gadag, & Wang, 2010). Asian immigrant women residing in Canada have significantly lower rates of Pap smear screening compared to Canadian-born women, 52% vs. 72%, respectively (Xiong et al., 2010). More specifically, "Chinese women were identified as having four times higher incidence of invasive cancer in the cervix than Caucasian women"

(BC Women's Hospital and Health Centre, 2010). Chinese and Vietnamese immigrant women, especially those who are older and are non-fluent in English, have been found to have more cervical cancer and to be the least likely to participate in cervical screening programs, compared to other ethnic groups in Canada (Donnelly, McKellin, Hislop & Long, 2009; Hislop, Inrig, Bajdik, Deschamps, Tu, & Taylor, 2003).

This paper will focus on only Southeast Asian (SEA) immigrant women residing in Canada because cervical cancer is very prominent among this group, as well as under-utilization of screening services, compared to Canadian-born women. As previously mentioned, there is a lack of literature that focuses just on SEA women and their underutilization of cervical cancer screening programs. Guided by the HBM, this paper provides a critical review of the literature on factors that affect SEA immigrant women's accessibility and utilization of Pap smear screening in Canada. To be more specific, immigrants are defined as "all persons who were not Canadian citizens by birth" (Ng, Wilkins, Gendron, Berthelot, 2005, p. 2). The main SEA group being studied in this paper is the Chinese[1], as Chinese immigrants continue to be one of the largest immigrant groups migrating to Canada – in 2006, they were the second largest group, and approximately 466,940 Chinese immigrants had arrived in Canada (Statistics Canada, 2007). Depending on the availability of literature, this paper will also look at other SEA groups, like Vietnamese, Korean, and Cambodian because they are among the fastest growing visible minorities in Canada. It is important to note that this paper does not attempt an exhaustive review of all the literature investigating this topic, but rather focuses on research that is relevant to the barriers faced by SEA women, and the core concepts of the HBM.

[1] Though China is geographically situated in East Asia, this paper will refer to the Chinese as Southeast Asian because of the fluidity of migration throughout Asia.

The first section of this literature review will describe the Health Belief Model, which is the main theoretical framework that will be used to guide this literature review. The second section will describe the methodology and research strategy used to conduct this literature review. The third section will examine the factors, guided by the core components of the HBM, that affect the accessibility and utilization rates among SEA immigrant women residing in Canada. This third section will be divided into the three main components of the HBM: *a) Modifying Factors; b) Individual Perceptions;* and *c) Cues to Action.* The fourth and final section of the paper will examine proposed culturally-sensitive strategies and recommendations in the literature, which could enhance SEA participation in cervical screening programs.

2.0 THE HEALTH BELIEF MODEL

The Health Belief Model (HBM) will be used as a framework to guide the literature review in this paper. The HBM is a widely used framework to explain why people practice certain health behaviours and not others. Initially, the HBM was developed to explain why people underutilized or did not participate in disease prevention or detection programs of the Public Health Service in the 1950s (Strecher & Rosenstock, 1997). Presently, the HBM does not focus just on the utilization of illness prevention or detection programs but on all preventive actions taken against illnesses and diseases.

The HBM is based on value-expectancy concepts. Essentially, the model focuses on an individual's: (1) *desire* to avoid illness or get well (value); and (2) *belief* that if they do a specific health action, it would prevent or ameliorate illness (expectation) (Strecher & Rosenstock, 1997). The two main components of the HBM consist of 'perceived threat' and 'perceived benefits (minus perceived barriers)'.

2.1 Perceived threat

An individual's perceived threat consist of two subcategories: perceived susceptibility and perceived severity. Perceived susceptibility is an individual's subjective perception of the *risk* or *vulnerability* of contracting the health condition, disease, or illness (Taylor, 2006). This includes acceptance of the diagnosis, personal estimates regarding one's susceptibility to the disease, and susceptibility to illness in general (Strecher & Rosenstock, 1997). Perceived severity is the individual's subjective feelings of *how serious* the consequences of contracting the illness are, or of leaving the health condition untreated. This includes personal evaluations of medical or clinical consequences, for example death, disability, and pain, as well as social

consequences, such as the health condition's effects on work, family life and social relations (Strecher & Rosenstock, 1997; Taylor, 2006).

2.2 Perceived benefits (minus perceived barriers)

The actions that an individual takes will depend on their subjective beliefs of how effective the available methods are in reducing the disease threat. The perceived benefits are then weighed against the individual's perceived barriers or negative aspects that the course of action may present. Examples of perceived barriers may include how expensive the course of action is; how dangerous it is, such as its adverse side-effects; how unpleasant it is, whether the course of action is painful, difficult, or upsetting; and how inconvenient or time-consuming it is (Strecher & Rosenstock, 1997).

Modifying factors that affect an individual's perceived threat include demographic and socio-psychological variables. However, as this paper is not focusing on psychological issues, the socio-psychological variables will be modified to socio-environmental variables[2]. In addition, cues to action are external influences that promote the desired behaviours of the individual, such as media influence and physician recommendations. Cues to action, along with modifying factors and individual threat perceptions will affect an individual's likelihood of action; in this case, it would be the likelihood of screening. See Figure 2 for variable interaction.

In sum, the HBM essentially implies that individuals will change their behaviour if they feel threatened by their current health conditions (perceived susceptibility and severity), and that the change in behaviour will be beneficial to them, where the costs (perceived barriers) of changing their behaviour are outweighed by the benefits (Strecher & Rosenstock, 1997). As mentioned, the HBM has been extensively used to determine why individuals refrain from or

[2] Essentially, these factors are the same, but it is just modifying the name of the variables.

Figure 2: The Health Belief Model

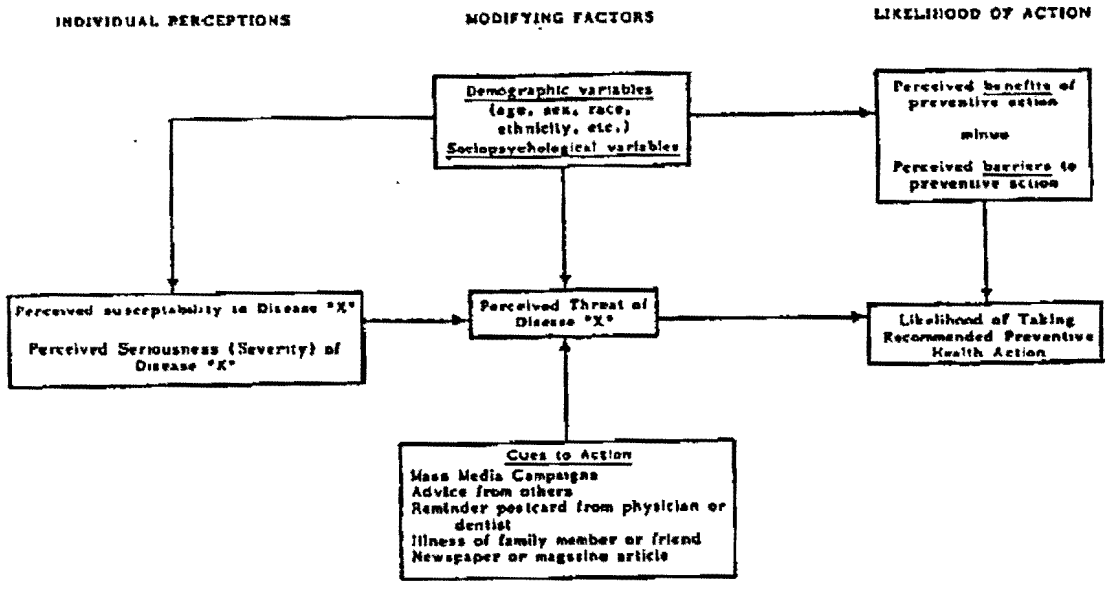

Fig. 2. Health belief model. From Strecher and Rosenstock, 1997. *Cambridge handbook of psychology, health, and medicine.* Ed. Andrew Baum, p.115.

participate in preventive health activities. Several studies reviewed the effectiveness of this model, and the results provided substantial empirical support for the HBM (Burack & Liang, 1987; Calnan & Rutter, 1986; Calnan & Williams, 1991; Strecher & Rosenstock, 1997). Thus, the HBM is the most appropriate framework when examining the factors that contribute to the use of cervical cancer screening among Asian immigrant women residing in Canada.

3.0 METHODOLOGY (RESEARCH STRATEGY)

A review of published literature was conducted by searching the following electronic research databases: Proquest, PsycINFO, PubMed (Medline), Scholars Portal, Sage Journals Online, and ScienceDirect. These databases were chosen because they contain peer-reviewed journal articles that are relevant to this literature review. The electronic search was limited to articles in the last 25 years, from 1986 to 2011 inclusive; were published in English; quantitative and qualitative methods; target SEA population particularly Chinese, Vietnamese, and Korean women; and Canada and United States settings.

Key search terms included (i) cervical cancer; (ii) Pap smear screening or Pap test*; (iii) Southeast Asian women or Asian women or Asian immigrant women; (iv) Chinese women; (v) Vietnamese women; (vi) Korean women; (vii) Cambodian women; (viii) sex and Asian women; (ix) Asian health beliefs; (x) professional interpreters or medical interpreters or interpreters in healthcare settings. It is important to note that all of these key words were not used in one search; there were several searches done with a variety of combinations of these words. Boolean operators "AND", "OR", and "*" were used to ensure a focused and comprehensive list of literature related to the issue of interest.

Other electronic sources, such as reliable websites (i.e. Canadian Cancer Society; Statistics Canada) were also consulted, mainly for numerical figures, percentages, definitions, and Pap testing procedures.

3.1 Inclusion/Exclusion Criteria

Phase 1: The abstracts of these studies ($n>300$[3]) were then examined for relevancy. Articles were excluded if they discussed solely the etiology and epidemiology of cervical cancer,

[3] 'n' cannot be specified (i.e. '=') as multiple searches were done on various research databases.

or if they focused on cervical cancer screening for south/southwest Asian immigrant women. Though this literature review is focused on SEA immigrant women, studies that examine other immigrant groups who exhibit similar characteristics (i.e. health beliefs, linguistic barriers) are included in areas where the literature is lacking for SEA immigrant women. By the end of phase one, 46 peer-reviewed journal articles were selected for an in-depth analysis using HBM core concepts.

Phase 2: Full articles were obtained for all relevant studies in PDF format and a critical analysis of their content was conducted using the HBM core concepts – (1) Modifying Factors (demographic variables, socio-environmental variables, cues to action); (2) Individual Perceptions (severity and seriousness); and (3) Likelihood of Action (perceived benefits vs. barriers).

3.2 Overview of acquired studies

Overall, 3 main types of studies were obtained through this literature search: (1) empirical qualitative research including focus groups and interviews with SEA immigrant women from all ages (i.e. 18-60+); (2) systematic reviews; (3) analysis of existing datasets (i.e. from government surveys, health questionnaires).

4.0 MODIFYING FACTORS INFLUENCING SEA WOMEN'S PRO-SCREENING BEHAVIOURS

4.1 Demographic Variables

4.1.1 Age, marital status, and education

The HBM recognizes that demographic variables naturally affect an individual's likelihood of action. SEA immigrant women's likelihood of utilizing cervical cancer screening methods is naturally affected by their demographic factors. Age, marital status, and level of education are all interrelated and will be examined in this section.

Studies found that SEA immigrant women between the ages of 18-39 years and 60+ years were less likely to receive Pap testing or reported never to have been screened, compared to those who were between the ages of 40-59 years (Hislop et al., 2003a; Lee-lin, Pett, Menon, Lee, Nail, Mooney, & Itano, 2007; Xiong et al., 2010). This significantly relates to another demographic factor, SEA women's marital status. For instance, studies have found that single SEA women were less likely to participate or have never been screened for cervical cancer, while those who are married were more likely to have heard of Pap testing, intended to participate in one or have had one in the past (Hislop et al., 2003a; Hou & Lessick, 2002; Nguyen et al., 2002; Taylor et al., 2004). Assuming that on average, younger SEA women are not married, whereas the middle-aged women (i.e. ages 40-59) are more likely to be married, which relates to what the studies above have presented. Though younger SEA women in general were less likely to have been screened, Nguyen *et al.* (2002) found that younger Vietnamese women who had previous experience with Pap testing were more likely to undergo Pap testing again. This was the case because the younger Vietnamese women were more open and receptive to Western preventive methods, like Pap testing; and younger Vietnamese women were less

likely to be familiarized with their heritage culture compared to older Vietnamese women. In relation to the HBM, younger SEA women may not have had that many 'life experiences' (i.e. marriage, encountering a life-threatening disease, etc) to view cervical cancer as a threatening disease; therefore, younger SEA women will less likely go for cervical cancer screening, which supports existing literature.

The level of education that SEA women have also influences whether or not they have been screened. In relation to the HBM, SEA women with low levels of education are more likely to view cervical cancer as less of a threat (i.e. perceived threat) because they may not understand the complexities of the disease. Studies have found that SEA women with low levels of education are less likely to have had a Pap smear (Hislop et al., 2003a; Jackson, Chitnarong, Marchand, Hislop, & Taylor, 2002; Xiong et al., 2010). More specifically, Ma and Fleisher (2003) found that 77.6% of Cambodian women who participated and had less than a high school education, reported to never have been screened for cervical cancer. On the other hand, only 24% of women in the study with a high school degree or higher reported to never having been screened for cervical cancer (Ma & Fleisher, 2003). In addition to low levels of education affecting rates of Pap testing, Hislop, Jackson, Schwartz, Deschamps, Tu, Kuniyuki, Teh, Yasui, & Taylor (2003) also found that SEA immigrant women who are financially unstable or have low socioeconomic status (SES) are less likely to participate in Pap testing. This factor will be discussed in more detail later on.

4.1.2 Linguistic barriers

To some, language is often considered as a skill-set, interrelated with an individual's ethnicity, and ethnicity, according to the HBM, is considered as a demographic variable. Therefore, language differences will naturally affect SEA women's likelihood of participating in

cervical cancer screening. Language is sometimes used as a selection criterion when searching for a healthcare provider or specialist, which can lead to ethnic matching. The following study illustrates an example of ethnic matching. Leduc and Proulx (2004) found that recently immigrated families to Quebec tended to seek out healthcare providers of their same ethnic origin, a process that is known as *ethnic matching*. The immigrant families that participated in this study indicated that the inability to speak the mainstream language was one of the main reasons why they sought healthcare services that were provided in their ethnic language, where the healthcare providers were of the same ethnic origin as themselves. Ethnic matching, therefore, increased the immigrants' ability to understand what the provider was saying to them and their fear of not being understood by the provider (Leduc & Proulx, 2004). This 'fear' of not being understood relates back to the HBM, and it acts as a perceived barrier, affecting the likelihood of accessing healthcare services.

The immigrant families also revealed that sometimes, because this fear of not being understood by the physician was so prevalent, they over-utilized available health services. For example, they would arrange repeated visits with the physician or visit multiple healthcare clinics to examine the same problem, believing that their concern was not being understood. Leduc and Proulx (2004) also found that even those who arrived in Quebec for a long time and spoke English and French proficiently, still engaged in ethnic matching because they claimed that physicians of the same ethnic origin "know their habits and illnesses" (p. 25). Wilson, Chen, Grumbach, Wang, and Fernandez (2005) also supported the notion that access to a language-concordant physician substantially reduced the risk of comprehension problems among immigrants and decreased their unmet healthcare needs.

Not only is access to a language-concordant healthcare provider an important factor for frequent utilization of healthcare services, but English proficiency is just as important. Ma and Fleisher (2003) found that how well English was spoken was significantly related to the screening status, where 87.9% of Cambodian women and 41.5% of Chinese women interviewed who did not speak English at all, had never been screened for cervical cancer[4]. Additionally, Cambodian women who watched television in their native language were less likely to go for Pap testing compared to those who watched English programs. Yu *et al.* (2001) found that Chinese-American women who spoke better English than their counterparts were more likely to have knowledge and understanding about the purpose and importance of Pap testing[5].

In general, it has been found that Asian immigrants do not speak or are not as fluent in English or French compared to Canadian-born women (Latif, 2010). After examining the Canadian Community Health Survey 2.1 conducted in 2003, Sun, Xiong, Kearney, Zhang, Liu, Huang, & Wang (2010) indicated that nearly one-third of Asian immigrant women were not able to speak one of the official languages. Similarly, several studies have found that the inability to communicate with healthcare providers using English medical terms prevented Chinese women from effectively expressing their needs and concerns to their doctors; thus, the level of English proficiency is a significant barrier to the use of screening services (Chilton et al., 2005; Liang et al., 2004; Wilson et al., 2005). It was also found that Chinese women who were not proficient in English indicated that scheduling medical appointments was a major challenge (Jackson et al., 2002). This implies that Asian women may prefer to engage in ethnic matching and benefit

[4] It is also important to note that Chinese women who are not fluent in English or French were almost three times more likely to have never had a mammogram (Sun, Xiong, Kearney, Zhang, Liu, Huang, & Wang, 2010). This demonstrates how large of an issue linguistic barriers pose.

[5] The use of clinical and self-breast examination and mammograms were also included.

greatly from it when accessing cervical screening. Clearly, Asian women suffer from health illiteracy, where health literacy is defined as:

> ...the ability to read and comprehend prescription bottles, appointment slips, and other essential health related materials...[which results in unmet health needs due to the non] capacity to interpret and understand basic health information and services needed to make appropriate health decisions. (Nimmon, 2007, p. 382)

One study conducted by Marshall, Wong, Haggerty, and Levesque (2010) examined unmet healthcare needs of South Asian and Chinese-speaking immigrants and noted that health illiteracy was evident. During the interview, a Mandarin-speaking woman states:

> ...it would be convenient [to have the written information in Chinese so that] we could understand more because sometimes when you read the [health-related brochures] in English, you really don't know what they mean, particularly the medical information. The medical terminology is very hard, such as the terms of diseases or [medical] treatments. You have to look them up in the dictionary. Sometimes we just don't bother and end without knowing the meanings. (Marshall et al., 2010, p. 3)

This implies that language proficiency is not only a communication barrier, but also a comprehension barrier for immigrants, especially when medical and scientific terms are involved. Those with low English proficiency reported having more difficulty understanding medical situations and instructions for medication use compared to those who were English-proficient (Wilson et al., 2005). As a result of this comprehension barrier, it can be inferred that Asian immigrant women would report higher unmet healthcare needs.

Evidently, low level of language proficiency is a significant barrier for SEA immigrant women in obtaining health information and effective health communication (Latif, 2010; Liang et al., 2004; Sun et al., 2010; Wilson et al., 2005). This raises implications for the need of

professional interpreters within the medical setting, especially for important preventive healthcare services such as the Pap smear screening, which will be discussed later on.

On the other hand, there is some literature that suggests that the ability to speak English or French is not the only factor associated with Pap testing for Asian immigrant women in Canada (Xiong et al., 2010). Xiong *et al.* (2010) found that SEA women who were born in Canada and those "who arrived in Canada as children, had significantly lower rates of Pap smear use, although they should not have language and health care access barriers to screening" (p. 139). As a comparison, SEA American women who were fluent in English also exhibited lower rates of Pap testing (Xiong et al., 2010). Even after many years in Canada, Asian immigrant women had lower rates of Pap testing than those of non-immigrant women (Xiong et al., 2010). Similarly, McDonald and Kennedy (2007) indicated that Canadian-born women of Asian ethnic descent had significantly lower rates of cancer screening than Canadian-born white women, even though these women were most likely to have been raised and educated in Canada. This implies that although language difficulties are still a major concern for SEA immigrant women, other factors such as socioeconomic status, cultural traditions and beliefs, and individual perceptions of susceptibility and seriousness of cervical cancer may have more of an effect on the underutilization of Pap testing than the level of English proficiency.

4.2 Socio-environmental Variables

4.2.1 Socioeconomic status

Though there has not been a lot of research directly linking SEA immigrant women's health status to their employment, it can be inferred that the type of employment SEA immigrant women have can indirectly affect their utilization of and access to Pap testing. Canada's neo-liberal restructuring, and a pronounced emphasis in immigration policy in favour of skilled

workers and those who are seen as potentially contributing to Canada's economy, continue to place Asian immigrant women at a disadvantage in the immigration and settlement process (Man, 2004). A majority of Asian immigrant women enter as dependants of their husbands, where their relatively high education and training usually go unrecognized. A lot of the time, Asian women have to opt for jobs that are essentially "lower" than what they were trained to work as, in order to acquire the "Canadian experience" (Man, 2004, p. 141). Some Asian immigrant women become permanently deskilled because they "took whatever jobs they were able to find [and ended up working in] low-pay, entry level positions, which do not utilize their skills, education, or experience" (Man, 2004, p. 142). In addition, Asian immigrant women are being "channeled to work in the private sector, as part-time, flexible labour, with no benefits or job security...being used as disposable labour..." (Man, 2004, p. 137). Such new forms of precarious employment interacting with other factors like housework and familial obligations and commitment can prove to be detrimental to immigrant women's health.

Donnelly *et al.* (2009) found that low socioeconomic status is a major barrier to Vietnamese-Canadian women's participation in cervical cancer screening services, despite the fact that healthcare in Canada is funded publicly by the Medicare system. Ironically, some Vietnamese women with low socioeconomic status are still paying a price when accessing preventive healthcare services. For instance, many Vietnamese women are paid per hour because they are part of the lower-skilled labour force, and the few hours they take to wait in the doctors' office come out from their pay (Donnelly, 2008). Thus, for some SEA immigrant women, supporting their family's financial situation by working full-time in low-paying jobs, having multiple jobs and working overtime is more important than thinking about their own health (Donnelly et al., 2009). Also, SEA women who are working precarious jobs may not have

the flexibility from the employer to go for cervical cancer screening. In addition, Asian women have reported that having to utilize childcare services while they go for Pap testing makes it an inconvenience, as well as a financial burden, resulting in lower rates of Pap testing (Jackson et al., 2002). Clearly, SEA immigrant women's low socioeconomic status results in them having no time to access preventive healthcare services. Their low socioeconomic status hinders their perceived threat of cervical cancer as a result of having other issues to worry about. In other words, they would rather spend their money and time doing other things (i.e. spending time with family, working to make money) rather than think about preventing a disease that has yet to exhibit life-threatening symptoms. This also relates to the notion of family importance superseding SEA immigrant women's own health needs, which will be discussed later in this review.

4.2.2 Length of stay in Canada

The length of stay in Canada also affects the participation of cervical cancer screening among SEA immigrant women. Xiong *et al.* (2003) found that SEA immigrant women who were living in Canada for less than 10 years were less likely to have had a Pap test, compared to those who were living in Canada for more than 10 years. This could be because those who recently arrived may be unfamiliar with Canada's healthcare system, as well as having lower English proficiency than those who have been living here longer (Xiong et al., 2010). When compared to non-immigrant women, both recent and long-term SEA immigrant women had significantly lower rates of ever having a Pap smear or recent Pap smear use (Xiong et al., 2010). This raises the implication that these women are less familiar to the mainstream culture and thus, continue to hold onto their own culture. This is a logical assumption, as other studies have found

that SEA immigrant women who were not as integrated[6] were less likely to have been screened for cervical cancer (Hislop et al., 2003b; Jackson et al., 2002). More specifically, Jackson *et al.* (2002) reported that Chinese women who were less integrated to the mainstream culture and with low education did not understand the scientific reasoning behind a Pap smear, such as the purpose of sampling cervical cells. SEA women who arrived in the host country when they are older (i.e. through the family class) tended to not become integrated with mainstream culture; therefore, they are the most affected and their health is most at risk (Hislop et al., 2003b).

4.2.3 Geographical settlement

In relation to the HBM, geographical settlement would be considered as an external barrier, something that would affect SEA women's access to Pap testing. Research has reported that there may be significant relations with regards to where immigrant women choose to settle and their rate of access and utilization of healthcare services. Baicker, Chandra and Skinner (2005) found that where a patient lives can have a large impact on the level and quality of healthcare the patient receives. They found that immigrants who settle in low-income neighbourhoods in the United States are faced with low-quality hospitals and providers (Baicker, Chandra & Skinner, 2005). This is a gap in the Canadian literature, where future research would need to investigate whether this is the case for Canada as well. However, it can be implied that SEA immigrant women settling in such neighbourhoods can be problematic because the low-quality providers and hospitals may not be effectively promoting cervical cancer screening. This would result in SEA immigrant women having low perceived threat of cervical cancer, due to the lack of effective promotion of screening services and quality recommendations from the neighbourhood.

[6] In the literature reviewed, the term used for adopting the main culture is 'acculturation'. However, in order to detract the negative connotation that 'acculturation' carries, the term integration will be used throughout this paper instead.

In addition, depending on where Asian immigrant women have settled after migration, they may face transportation barriers to healthcare facilities (Jackson et al., 2002). For example, if an Asian immigrant woman has settled in the suburbs, and her healthcare provider is located centrally downtown or in a distant location in the same suburb, the distance between her home and the healthcare service location is probably inaccessible. Research has indicated that distance to healthcare services is particularly important for immigrant women, because they are a group with poor access to private transportation and are quite dependant on public transit (Haque, Khanlou, Montesanti, & Roche, 2010; Truelove, 2000). Those who do not want to use the public transit system may end up relying on their family. Some SEA women however, feel as though they are inconveniencing their family members if they have to rely on them as a means of transportation for every doctor's visit (Hou & Lessick, 2002; Liang et al., 2004). Clearly, where SEA immigrant women choose to settle can affect their access to and participation in cervical cancer screening services.

Research has found that SEA women with lower education will tend to settle in neighborhoods that potentially hinder their frequency of cervical screening utilization (Donnelly et al., 2009; Hislop et al., 2003a). A comparison of Chinese women living in Chinatown and Richmond, two neighborhoods in Vancouver, British Columbia, was conducted (Hislop et al., 2003a). The Chinese women living in Chinatown had the lowest Pap testing rate (Hislop et al., 2003a). This is significant because there were major differences with regards to sociodemographic factors between the two neighborhoods. In Chinatown, the Chinese women were a lot older, were not as fluent in English, had low education and household income, and lived in subsidized housing (Hislop et al., 2003a). The Chinese women also preferred going to

an Asian women's clinic; thus, they had less experience with North American healthcare services and were less confident in the effectiveness of Western medicine (Hislop et al., 2003a).

In comparison to Chinatown, Richmond had a completely different sociodemographic profile. It was a much larger community with more educated and recent immigrants, as well as a high number of physicians and more female physicians (Hislop et al., 2003a). Hislop *et al.* (2003a) found that Richmond turned out to have the higher Pap testing rate. This implies that there is a possible neighborhood effect that would impact the effective implementation of health care services within these neighborhoods. This study is significant as it brings forth a new perspective by relating healthcare services access, specifically cervical screening, to the sociodemographics of a neighborhood settlement. This raises implications for future research to study the underlying dynamics within a neighbourhood and how they affect SEA women's threat perception of cervical cancer and the need for screening.

5.0 INDIVIDUAL PERCEPTIONS INFLUENCING SOUTHEAST ASIAN WOMEN'S PERCEIVED THREAT

5.1 The Influence of Southeast Asian Culture[7]

5.1.1 Tradition and sexuality

Current literature suggested that culture-related discomfort with sexuality may actually lessen the likelihood of women accessing preventive screening (Woo, Brotto & Gorzalka, 2009). In relation to the HBM, culture affects SEA women's perception of susceptibility to and severity of cervical cancer, and can lower their participation in cervical cancer screening. For example, culture has a large influence on SEA women's utilization of Pap testing because the majority of Asian cultures view the topic of sex and discussions of sexual organs as taboo (Lee, Tripp-Reimer, Miller, Sadler, & Lee, 2007; Woo, Brotto & Gorzalka, 2009). Traditional Asian cultural beliefs about health and illness are deeply influenced by the teachings of Confucius, Taosim, and Buddhism, and are quite different from Western[8] cultural beliefs (Liang, Yuen, Mandelblatt, & Pasick, 2004; Woo, Brotto & Gorzalka, 2009).

The teachings of Confucius have heavily influenced Chinese beliefs and culture (Woo, Brotto & Gorzalka, 2009). Confucianists view sex as an act that is reserved solely for people who are married and they see its main purpose to be for procreation (Woo, Brotto & Gorzalka, 2009). In particular, there is a Confucian teaching in both Chinese and Vietnamese culture, 'Nam nu tho tho bat than', meaning the body is a private area; thus, a woman and a man should never touch or be close to each other if they are not married (Donnelly, 2008). As a result of this

[7] When referring to "Southeast Asian culture" or "Asian culture" in this chapter, it is merely referring to elements in the culture that discourage sexual acts or discussion, and the conservativeness of Asian culture. It is important to understand that Asian culture has many more facets than what is being referred to in this paper.

[8] When referring "Western cultural beliefs" or "Western culture" in this section, it is only referring to elements in the culture that are open about the topic of sex, sexual acts and discussion. It is important to understand that Western culture also has more to it than what is being referred to in this paper.

long history of sexual suppression in traditional Asian culture, discussions about sex are not seen as appropriate in Asian families (Woo, Brotto & Gorzalka, 2009). This implies that SEA women's perceived susceptibility to cervical cancer will be lower because they are highly discouraged to discuss their body parts with others; thus, they may be less aware of diseases in those areas.

Research has also found that SEA Canadian women generally have a significantly lower level of sexual knowledge compared to European Canadian women (Woo, Brotto & Gorzalka, 2009; Xiong et al., 2010). In China, sex education in schools is very limited (Okazaki, 2002). Chinese women, especially those from older generations, did not receive adequate sex education, and as a result, many do not know how to discuss the topic of sex with their children (cited from Chang, 1997 in Woo, Brotto & Gorzalka, 2009). In Cambodian culture, it is believed that women *should* lack sexual knowledge as sexual knowledge could lead to premarital sex, which can dishonour the family name (cited from Kulig, 1994 in Okazaki, 2002). Like the Chinese, discussions of sexuality and intercourse are kept to a minimum for Cambodian women. Research has also found that Chinese women are less sexually experienced than European Canadian women, where European Canadians were found to have engaged in a broader array of sexual activities than the Chinese (Woo, Brotto & Gorzalka, 2009). This simply reflects SEA women's conservative attitudes and behaviours toward sexuality, and as a result, it can be implied that they underuse Pap testing due to their conservative attitudes.

Woo, Brotto and Gorzalka (2009) hypothesized that due to traditional Chinese beliefs about sexuality, Chinese women were more reluctant to undergo Pap testing and that heritage

acculturation[9] has contributed to low rates of Pap testing for Chinese women. They found that Chinese women, in comparison to European women, were more uncomfortable with sexuality and they exhibited more embarrassment with exposing the vagina for examination (Woo, Brotto & Gorzalka, 2009). In turn, even though 89% (n=260) of the Chinese participants acknowledged that Pap tests were necessary without symptoms present, Woo, Brotto and Gorzalka (2009) found that their conservatism (i.e. discomfort with sexual discussions) and their embarrassment (i.e. revealing their body to strangers), lessened the likelihood of Chinese women participating in Pap testing.

Interestingly, Woo, Brotto and Gorzalka (2009) found that heritage acculturation among the Chinese women was a strong predictor of the likelihood of Chinese women going for testing. Woo, Brotto and Gorzalka (2009) suggested that in addition to the conservative Chinese attitudes about sex, heritage acculturation serves as a factor that may affect Pap testing behavior. This demonstrates that Asian culture has a significant influence on SEA women's individual perceived susceptibility to cervical cancer, where Chinese women who related more with the traditional Chinese culture were less likely to have gone for Pap testing. Sexual knowledge and sexual function however, did not have any predictive significance of whether or not a woman had ever had a Pap test (Woo, Brotto & Gorzalka, 2009).

This is a significant study as it is the first to empirically test that the low rate of Pap testing could be related to more conservative attitudes, beliefs, and behaviours toward sexuality. Woo, Brotto and Gorzalka (2009) however, did recognize that the population sample was not generalizable to all the Chinese immigrant women residing in Canada, as the age of the study sample was of a younger generation, where the mean age of the Chinese female participants was

[9] 'Heritage culture' is defined "as an individual's culture of birth or upbringing" and 'mainstream culture' is the "predominant culture in the new setting" (Woo, Brotto, & Gorzalka, 2009, p.599).

about 21 years old. Future research needs to investigate whether younger or older SEA women are more conservative in order to make these findings generalizable.

One element of the Korean culture also finds it taboo for a woman to have a direct discussion about her sexual organs (Lee et al., 2007). Korean women attribute different meanings than non-immigrant women to their sexual organs (i.e. their breasts and cervix) (Lee et al., 2007). For instance, they describe their breasts in a more subjective, indirect, and modest way; rather than choosing words that describe breasts with more sexual or medical connotations, Korean women would say 'the front chest' (Lee et al., 2007). In addition, it is shameful for Korean women to emphasize the breasts or to have big breasts and hence, they tend to wear more conservative clothing (Lee et al., 2007). Older Korean women said that they "used to wear traditional clothing that was tight around their front chests, flattening their breasts to avoid public display" (Lee et al., 2007, p. 715). Research suggests that in traditional Korean culture, sexuality, especially for women, is seen as taboo; thus, the symbolic meanings they attribute to their sexual organs may influence their beliefs and attitudes about cervical cancer and the screening process, resulting in low cervical cancer screening rates (Lee et al., 2007).

Asian culture affects not only SEA women's perceived threat of cervical cancer as result from lack of knowledge and discussion, but also the healthcare providers. With the notion of the body as a private area and Asian women expressing a more conservative style when discussing the subjects of breasts and cervix, SEA male physicians become very uncomfortable with cervical examinations (Donnelly, 2008). Physicians indicate that it is challenging to communicate with Vietnamese women about breast and cervical cancer, due to the effect of 'culture' (Donnelly & McKellin, 2007; Donnelly, 2008). Donnelly (2008) interviewed six healthcare providers who expressed several challenges that they faced when providing cervical

cancer screening services to Vietnamese-Canadian women because of culturally-sensitive issues. One physician states,

> Because Vietnamese women are influenced by their culture, the ways they think are different than [Caucasian] women. They don't tell you what they want. They talk about their [cervical cancer] concerns in a very ambiguous way and very indirectly. So it is very difficult. (Donnelly, 2008, p. 161)

Evidently, due to the inappropriateness in Asian culture of discussing the topic of sex and describe their sexual organs, SEA women are more likely to underestimate the risk of getting cervical cancer. As a result, they do not have sufficient knowledge about the risks of contracting cervical cancer. Thus, it can be implied that SEA women have much lower perceived susceptibility to cervical cancer than native-born Canadian women. According to the HBM, having low perceived susceptibility will result in a lower likelihood of participating in Pap testing.

5.1.2 Eastern[10] beliefs about health and illness

In general, SEAs have a strong belief that health problems usually self-correct and cure themselves. Based on the HBM, this belief will prove to be problematic because their perceptions of susceptibility to and severity of cervical cancer is lowered. A qualitative study by Jackson *et al.* (2002) focused on particular "concepts and practices that define reproductive health and illness, and cervical cancer screening among Chinese American and Canadian [women]" (p. 149). The study involved Chinese women, ages 29 to 72, where the mean age was 54 years old, from two west coast cities – Seattle, (Washington), and Vancouver, (British Columbia). The participants in Jackson *et al.*'s study (2002) reported that Pap tests in the

[10] When referring to "Eastern beliefs" or "Eastern medicine" in the next two sections, only certain health beliefs and treatment methods of the East that only pertain to SEAs are being examined. It is important to note that Eastern beliefs and medicine is a lot more vast than what is being referred to in this paper.

absence of symptoms are unnecessary because it puts them at risk for a problem that will eventually self-correct. Some women even stated that a "physician can always find 'something that may turn out to be nothing' and 'if you look for trouble, you will find it' " (Jackson et al., 2002, p. 151). This belief is largely influenced by the Confucian and Taoist principles of "elegant inaction", which "reflects a general admonition to allow things to be true to their own nature", with regards to health and illness (Jackson et al., 2002, p. 151). Others, however, may view this as having a fatalistic outlook. Fatalists tend to have an external locus of control; these include individuals "who believe that health is governed by external, unknown factors" (Straughan & Seow, 1998, p. 87). In simpler terms, Asian women who are fatalists are less likely to utilize Pap testing because they believe that cervical cancer is already "fated" and there is nothing that they can do to cure the illness or change their health outlook (Liang et al., 2004). For instance, Vietnamese-Canadian women believe that everyone has a "fated" health status, and that disease, illness and health are elements that have been predetermined from a higher power (Donnelly, 2006).

An example of fatalism is reflected in the participant responses in Jackson *et al.*'s study (2002), where a number of individuals expressed a fear of surgery if and when they go for a Pap smear; the healthcare provider may detect something abnormal that may easily correct itself, yet they will still be recommended for surgery. Accordingly, because surgeries in China are only performed for extreme and severe cases, the Chinese female participants feel that if they were to have surgery in Canada for something minor, they would be putting themselves at risk of dying or future infections, as well as affecting the circulation of *qi* and blood in the body (Jackson et al., 2002). The participants also viewed surgery, specifically hysterectomy, as stripping them of their womanhood, since Chinese culture values fertility; this would disappoint the husband, the

in-laws and even her own parents if the woman has not yet had a child prior to having this surgery (Jackson et al., 2002). Thus, Asian women view Pap testing as a screening method that seemingly "looks for [unnecessary] trouble" because it can potentially reveal a need for surgery (Jackson et al., 2002, p. 151). In relation to the HBM, SEA women who have a fatalistic attitude will also have low perceived threat of cervical cancer. To summarize, SEA women believe that they are fated and susceptible to cervical cancer and/or illness, and there is nothing they can do. As well, they believe that if they were to leave the health condition untreated, it will eventually fix itself, reflecting a low perceived severity of cervical cancer. As a result, SEA women have lower rates of Pap testing compared to the native-born Canadian population.

In general, Chinese people believe that important elements within the body need to be balanced in order to achieve good health (Jackson et al., 2002). Underlying elements of Chinese medical theory include the presence of wind, cold, or dampness, the balancing of yin and yang, *qi* circulation, in combination with proper diet, physical activity, and herbal recipes (Jackson et al., 2002). They believe that it is the connection that the individual forms with the environment and how their lifestyle is, that predicts their health (Jackson et al., 2002). Chinese women tend to view Western medicine as lacking the concept of balance within the body. By solely focusing on a specific area of the body like the cervix and discussing about only cervical cancer, this implies to a less integrated Chinese woman that the healthcare provider is not seeing the body as a whole (Jackson et al., 2002).

In addition, the Chinese believe that cancer occurs as a result of stagnant *qi*, which is poor circulation of blood, cold and wind, and if this process is left unresolved, a tumor will eventually form over the span of many years (Jackson et al., 2002). Chinese women believe that cervical cancer is a disease that is very difficult to treat and since it takes years for the tumor to

develop, the treatment process will be long and slow as well (Jackson et al., 2002). Therefore, Chinese immigrant women residing in Canada who are less integrated doubt the idea that a Pap smear (i.e. a 10-20 minute process) would be able to detect cervical cancer early enough before it becomes life threatening, as the cancer would have already begun developing years before.

Another reason that SEA women have low perceived threat is that they often believe that problems in the uterus solely result from being exposed to toxins "through poor hygiene, sexual promiscuity, a spouse's promiscuity, diet or environmental factors" (Jackson et al., 2002, p. 150). For example, Chinese women believe that cervical cancer will occur *only* if they or their spouse have multiple sexual partners, have previously contracted a sexually transmitted disease, are sexually active, or if they are about to enter into the stages of menopause, which is not the case (Jackson et al., 2002). Clearly, their perception of how cervical cancer develops is influenced largely in part by their culture and heritage lifestyle, resulting in low perceived susceptibility.

5.1.3 Utilization of Eastern Methods and Medication

Current literatures suggested that SEA immigrants often expressed a preference for traditional, alternative and holistic approaches to healthcare in Canada (i.e. herbal medicine), which were similar to the practices "back home", as opposed to the biomedical approach that physicians in Canada are educated with and trained to use (Asanin & Wilson, 2008; Liang et al., 2004). This subjective preference for Eastern healthcare practices resulted in under-utilization of healthcare services among Mainland Chinese immigrants in Canada (Wang et al., 2008). Wang *et al.* (2008) found that the Chinese participants in their focus group indicated that they would rather pay for alternative methods than use the universal healthcare system available in Canada, because they believed that traditional Chinese medication was "safer" and can effectively cure the disease compared to Western treatments. Similarly, none of the SEA women in Liang *et al.*'s

study (2004) mentioned routine screening as a means of health maintenance; rather they placed more emphasis on eastern holistic approaches to maintaining their health.

Likewise, the Vietnamese women in Chilton *et al.*'s study (2005) indicated that they preferred using herbs as treatment for cancer, rather than seek Western medicine because it was believed that Western medication "caused heat", which creates an imbalance of the hot and cold energies within the body (Chilton et al., 2005). Traditional eastern treatments focus on activities and herbs that help dissolve tumors by improving blood circulation and *qi* circulation, which is why SEA immigrant women would prefer Eastern treatments compared to Western treatments for preventing cervical cancer (Jackson et al., 2002). Another reason why SEA women, more specifically Vietnamese women, were used to this practice was because in Vietnam, Western medication was often scarce and expensive, so women often resorted to inexpensive herbal remedies instead (Chilton et al., 2005).

In addition, SEA women believed in the notion of self-care (Liang et al., 2004). This included regular outdoor exercises like Tai-Chi and early morning exercises to reflect the idea of balancing the body with the environment, as well as keeping a balanced diet, which are all necessary to treat cancer (Jackson et al., 2002; Liang et al., 2004). Food intake is monitored in order to keep the right *qi* circulation and the hot-cold balance within the body (Liang et al., 2004). Herbs were often made into soups and integrated into the individual's regular diet. Similarly, Cambodian refugee women believe that traditional practices help to protect women from uterine disease, and perceive that karma plays a substantial role in determining the course of one's life, including their health (Mahloch, Jackson, Chitnarong, Sam, Ngo, & Taylor, 1999).

Though it is evident that cultural factors alone, such as the belief of *qi*, taking herbs, balancing yin and yang, and the notion of fatalism, can influence Pap testing in SEA immigrant

women residing in Canada, some literatures have suggested that it is other modifying factors, like linguistic barriers and physician recommendations, that determines Asian women's pro-screening behaviours, which will be discussed later on (Hislop et al., 2003b; Twinn, Shiu & Holroyd, 2002; Woo, Brotto & Gorzalka, 2009).

5.1.4 Gender roles in Asian culture

Traditionally and even presently, most Asian cultures are highly collectivistic and patriarchal (Okazaki, 2002). This means that the family, as a unit and the man of the household comes first. As previously mentioned, Chinese and Vietnamese culture is largely influenced by Confucianism, where one aspect of the doctrine views the man as head of the household and family (Ho, 1987; Kibria, 1990). The paternal role in the family is viewed as the primary "educator-disciplinarian, in addition to that of a provider", while the maternal role is a protective and nurturing one[11] (Ho, 1987, p. 230). In the past, Chinese women did not have their own status – they would hold the same status as their husbands, meaning that they were referred to as "the wife of that business man", and even educated women in China were "whipped into submission to their fathers, husbands, and sons..." (Ko, 1994, p. 7). Women in Asian cultures were often married off at a young age, and would then move into their husband's father's house (Kibria, 1990). Asian women continued to have little power in the household until they gave birth to sons (cited from Johnson, 1983; Kandiyoti, 1988; Lamphere, 1974; Wolf, 1972 in Kibria, 1990). This clearly illustrates the power difference between men and women in Asian cultures.

The dynamics of the gender roles in Asian cultures and families, however, have slightly changed, both in Asia and in Canada, largely in part due to migration (Ho, 1987; Man, 2004). Rather than staying at home solely to care for and nurture their children, more Asian women are

[11] It should be noted that all women in general, exhibit the nurturing and caring role. However, this section examines literature that just focuses on the difference in gender roles of SEA men and women in order to make it more relevant to the paper.

beginning to work outside the home now. Their main reason for working is to "support the family" (Ho, 1987, p. 233), which in a way continues to reflect the traditional Confucian views that Asian women have, and that is to put family first. Women in Taiwan are now sharing the authoritative role in the family with their husbands in the home, and new fathers in Hong Kong have reportedly been participating in more childcare duties (Ho, 1987). Both examples illustrate a digression from the traditional roles of men and women in SEA culture. However, a study by Kibria (1990) found that Vietnamese immigrant women who have settled in the United States wanted to remain in the traditional patriarchy system. Kibria (1990) found that Vietnamese women who were settling in the United States had begun forming collective groups and networks with other Vietnamese women to support each other from arising problems within their family; however, they still wanted to maintain the fundamentals of the traditional family structure. For example, participants in Kibria's study (1990) revealed that sexual promiscuity or extramarital affairs were unacceptable, and that they viewed the economic protection and the disciplinary figures of Vietnamese men as being attractive and beneficial for them.

Clearly, family is very important to SEA women. Donnelly (2006) found that family *can* affect SEA women's decision to participate in cervical cancer screening. SEA women view their health as being interconnected with the broader aspects of their social lives, for instance, their ability to care for their children, to be able to emotionally and financially support their family, and to participate in family events and activities (Donnelly, 2006). Donnelly (2006) acknowledged that this conceptualization is different than the Western idea of health and illness, which places more emphasis on the individual, rather than collectivity. This suggests that Western women are more likely to seek cervical cancer screening and not worry about other priorities, like family. On the other hand, SEA women are more reluctant to access these

screening services because they feel the need to worry about other competing priorities, like the family's financial state, employment concerns or even their children's education (Donnelly, 2006). A Vietnamese woman who participated in Donnelly's study (2006), expressed that SEA women need to understand that yes, family is important, but if they become ill with cervical cancer, then they will lose everything, including their family.

> Whatever you've invested in, you lose. You have to say that if they're sick, then all their hard work, their savings, will be gone. They work so hard for their children, but if they fall ill, all will be gone. So if they could just take one day a year to go for these examinations, they'd be able to enjoy the fruit of their hard work for the rest of their lives. You need to explain why going for these tests is good in that way. (Donnelly, 2006, p. 97)

It is evident that in both the past and present, SEA women continue to reflect the traditional Confucian view of placing their men and family needs before their own. This notion indirectly affects Asian women when accessing and utilizing Pap testing. As Asian women continue to place their family first, many may not want to participate in cervical cancer screening, because it will take time away from 'caring for and nurturing' their children, essentially, when that time can be used to do other things for and with their family. Discussions of anything sexual in nature (including issues with their sex organs), with their husbands or children would represent a threat to the social order of the family (Okazaki, 2002).

5.1.5 Gender of the healthcare provider

Immigrants have expressed that if their physician is of a gender that is not congruent with their preferences, due to cultural or religious beliefs, this may discourage them from seeking healthcare services. For example, Asanin and Wilson (2008) found that female immigrants from their focus group "identified the lack of female family physicians and specialists as a barrier to receiving appropriate care" (p. 1277). Asian immigrant women in Canada who have male

healthcare providers may not be participating in regular Pap testing because they may not be as comfortable revealing or discussing their sex organs (Amankwah, Ngwakongnwi & Quan, 2009). Several studies have found that Asian women actually avoided seeking primary care and health services because female physicians and specialists, for example, gynecologists, were not available (Asanin & Wilson, 2008; Hou & Lessick, 2002; Jackson et al., 2002); thus, their health concerns and issues were left untreated. One study found that Chinese women who had a Chinese female physician had gone for recent Pap testing, while those who had a Chinese male physician did not go for regular Pap tests (Hislop et al., 2003b). This could be a result of traditional gender roles affecting the relationship between an Asian woman and the male healthcare provider, where a woman will not question what a man says (Donnelly, 2006). Thus, Asian women are less likely to ask their male healthcare provider questions if they had any concerns or confusion, resulting in blocked communication between male providers and SEA women.

In addition to the preferred "comfortableness" that female physicians provide Asian immigrant women, other studies have indicated that the knowledge and information that female physicians provide are significant in promoting the screening process. Hislop *et al.* (2004) compared Chinese immigrants' knowledge of the benefits of cancer screening and two sociodemographic and integration factors, namely their educational level and the gender of the doctor providing usual care, and found that there were significant relations between them. For example, women who were highly educated and under the care of a female doctor had greater knowledge of preventive health services and of the importance of seeking care (Hislop et al., 2004). Amankwah *et al.* (2009) also indicated that immigrants who have a female physician are more knowledgeable about the importance of screening, in comparison to those who have male

physicians. This implies that the gender of the physician also plays an important role in the knowledge that immigrants receive, with regards to preventive health services such as cervical cancer screening.

6.0 CUES TO ACTION THAT INCREASE THE LIKELIHOOD OF CERVICAL CANCER SCREENING

6.1 Healthcare Provider Recommendations

According to the Health Belief Model, a physician's recommendation to a gynecologist or to have a Pap test would be a cue to action, which can potentially increase Asian women's rate of screening. Twinn, Shiu and Holroyd (2002) found that one third of the Chinese women participants who went to the doctor when they were still living in China indicated that they were fully dependent on their physicians' advice on whether or not to seek cervical cancer screening[12]. This may have implications for the trust that they may have with their SEA healthcare providers, viewing them as knowledgeable and trustworthy when they arrive in Canada. This may also be the fact that SEA women tend to view their healthcare provider as having higher status, holding more authority and education than them, which is why they would listen to the healthcare providers (Donnelly, 2006; Twinn, Shiu & Holroyd, 2002). However, though SEA women listened to their healthcare provider's advice, they often chose not to question or clarify an issue to their provider (i.e. why it is necessary to get a Pap test) that they do not understand (Donnelly, 2006). This could hinder the communication between the healthcare provider and SEA women, potentially leading to a barrier in cervical cancer screening because SEA women may be uncomfortable questioning the provider. This is contradictory in itself, since physician "authority" emphasizes, through recommendations, the need for Pap testing, but also hinders the communication between SEA women and the provider. Clearly, this raises implications for future research to investigate whether the physician's authority increases SEA women's

[12] The dependency on healthcare providers' recommendations only applies to those SEA women who were seeking annual checkups and not for those who are not going for annual check-ups.

adherence to their recommendations or if the hierarchal relationship between the provider and patient hinders cervical screening participation.

Additionally, Twinn, Shiu and Holroyd (2002) found that women who were not currently getting screened "were more likely to depend on their physician's advice to motivate their health preventive behaviour" (383). This means that had the physician simply advised or recommended the SEA women who were not getting screened annually to go get screened, the women would most likely listen to the physician and go for a Pap test. This was also supported in Hislop *et al.*'s findings (2003b), where Chinese women indicated that physicians' support and recommendations for Pap testing was imperative for the initial and ongoing cervical cancer screening. Similarly, Woo, Brotto and Gorzalka (2009) found that a physician's advice regarding Pap testing was the most significant factor on the likelihood of Chinese women getting tested, in comparison to other factors, like sexual activity, perceived pain, and embarrassment. Clearly, SEA women have indicated that they do take healthcare providers' recommendations and advice into consideration when making decisions about participating in cervical cancer screening services.

However, SEA women may not find trust in all healthcare providers because they believe that there is a lack of appropriate specialization of healthcare providers to actually conduct the Pap testing (Jackson et al., 2002). For example, in Mainland China and Hong Kong, it is gynecologists who conduct the Pap testing on women, and older physicians who were trained in Asia continue to refer Asian women to gynecologists for Pap smears (Jackson et al., 2002). Thus, the Vancouver participants in Jackson *et al.*'s study (2002) were not comfortable seeing a general or family practitioner for cervical cancer screening and would rather see a gynecologist. However, this relates back to the problem that general practitioners are not actively advising

SEA women for Pap tests (Donnelly, 2006), in addition to the long wait periods to see a specialist and how SEA women view it as unnecessary.

6.2 The Need for Professional/Medical Interpreters in a Healthcare Setting

This next section is going to discuss a need for professional interpreters in healthcare settings. It is unfortunate that current literatures have not investigated this topic specifically for SEA immigrant women residing in Canada; thus, the literature examined in this section discusses the need for professional interpreters in healthcare settings for immigrants in general who are limited in English proficiency (LEP). However, by including this topic in this review, an inference can be made that SEA women also need professional interpreters when accessing cervical cancer screening, based on the fact that they are limited in English proficiency. With relevance to the HBM, the need to increase professional interpreters would be considered as a cue to action and a motivator for SEA women, increasing the likelihood of them participating in Pap testing because professional interpreters would minimize the existing language barrier between healthcare providers and SEA women.

There has been much debate about the use of ad hoc interpreters in medical settings. Some have argued that using ad hoc interpreters as opposed to professional interpreters can be detrimental to provider-patient communication (Kale & Syed, 2010), while others say that informal interpreters can facilitate trust and create a more comfortable environment for the newcomer (Meeuwesen, Twilt, Thije, & Harmsen, 2010). These issues will be discussed in further detail below, but it is crucial to understand the difference between an ad hoc or informal interpreter and a professional interpreter in order to see why professional interpreters are an essential cue to action. Firstly, ad hoc or informal interpreters are essentially anyone, regardless of age, gender, and educational background, who can fill the position of a professional

interpreter (Kale & Syed, 2010). Ad hoc interpreters must speak the same language as the immigrant, either fluently or with high level of comprehension. Usually, this position is filled by a family member, friend, neighbour, medical staff, nurse, another patient who speaks the same language, etc. An important aspect worth noting is that ad hoc interpreters are not formally trained on how to 'properly' interpret dialogue. On the other hand, professional interpreters are trained through the conduit model, to be invisible and emotionless (Hsieh & Hong, 2010)[13]. One interpreter stated "...me, I am just their voices. I transmit the message from the patient to the doctor and from the doctor to the patient" (Rosenberg, Seller & Leanza, 2008, p. 89).

In Flores' literature review (2005), he found that a lot of the research concluded that ad hoc interpreters tend to misinterpret or omit up to half of all healthcare providers' questions, are more likely to commit errors that can result in potential medical consequences, and have a higher risk of omitting medication side effects. Flores (2005) found in Launer's study (1978) that when medical orderlies were used as interpreters, key information were either distorted or excluded, which resulted in a complete restructuring of the actual responses. For example, one orderly interpreted the statement, "I pass stools with difficulty" to "Severe pain when he's passing stools", and even omitted "decreased hearing and neck pain" from one patient's complaints (quoted Launer, 1978 by Flores, 2005, p. 269). Flores (2005) also found that informal interpreters often privately questioned patients on the side, resulting in "needless repetition, irrelevant questions, and [creating] conflicts with patients and physicians" (p. 270). Finally, ad hoc interpreters who are children tend to ignore embarrassing issues and uncomfortable topics discussed during the medical appointments, such as private body parts (Flores, 2005). It may

[13] Hsieh and Hong (2010) found that the majority of professional interpreters are normally trained through the conduit model, where "they adopt a passive and neutral presence, faithfully transferring information from one language to another" (192). This model teaches interpreters to believe that they should be detached, emotionless and they should avoid all interactions with the parties, such as side-talk and "chitchatting".

also be the case that adult patients may self-censor in front of children interpreters. Similarly, it has been found that when ad hoc interpreters become the "direct source of information, it is not always...effective, especially in the case of precarious issues, [such as] relational problems, sexual or genital problems" (Meeuwesen et al., 2010, p. 202). In situations like these, the informal interpreter may feel uncomfortable and the patient may feel as though they have to hold back or self-censor on describing the symptoms of such precarious issues, especially in front of a family member, friend or neighbour, who are from the same culture where discussions of these topics are discouraged.

Meeuwesen *et al.* (2010) found that the use of family interpreters could sometimes facilitate communication between provider and patient; however, they still noted that professional interpreters make fewer errors compared to ad hoc or informal interpreters. Though this is the case, patients do not always want to use professional interpreters because there is a lack of trust that patients have with the professional interpreters (Meeuwesen et al., 2010). On the other hand, Kale and Syed (2010) found that such strong ties of trust and emotion between the patients and their friends and families could actually interfere with the interpretation process. This is because the patient's right to confidentiality and privacy may be breached if family members are acting as interpreters during the medical appointment, as opposed to having a professional interpreter instead (Kale & Syed, 2010). According to Rosenberg, Seller and Leanza (2008), family interpreters usually act as third party participants, often speaking as themselves rather than as professional interpreters who only transfer information between the parties.

In retrospect, using an ad hoc interpreter for immigrants is better than not having an interpreter at all because the LEP patient can still understand what the healthcare provider is

saying, as well as feeling comfortable with someone they know. However, research indicates that when immigrants use ad hoc interpreters or do not have an interpreter at all, it can still severely impair communication quality between the individual and the healthcare provider (Meeuwesen et al., 2010). This is because informal interpreters usually do not have sufficient knowledge of medical terminology needed to transfer the correct information to the patient. Healthcare providers have expressed dissatisfaction with ad hoc interpreters because they often take part in primary interactions and take on the role of the 'responder', where they would voluntarily interject the patient, negotiate directly with the provider and even add additional facts and information to the discussion between the healthcare provider and the patient (Meeuwesen et al., 2010; Rosenberg, Seller & Leanza, 2008). As well, ad hoc interpreters, especially those who are family members, tend to engage in side-talk with the patients, which also bothered the healthcare providers because they felt excluded (Meeuwesen et al., 2010). The physician would "wonder what the patient and the family interpreter are discussing together, especially if they receive brief bits of information after a long stretch of side talk" (Meeuwesen et al., 2010, p. 202). Although the aspect of trust is important for LEP patients, accuracy and correctly interpreting the information is most beneficial for the patients. Thus, this suggests that bilingual providers and trained medical interpreters may be the best option for efficient and high-quality communication for LEP individuals. One suggestion however, is for the professional interpreters to have an additional role as a cultural mediator, who takes into account the individual's cultural beliefs and values (Kale & Syed, 2010).

The use of professional interpreters also resulted in higher patient satisfaction, as well as ensuring correct interpretation. Liang *et al.* (2004) found that Chinese women were discouraged from visiting doctors because they felt like they were inconveniencing their children and family

members by having to rely on them for English to Chinese interpretation. Therefore, if professional interpreters were readily available, then these feelings of guilt and inconveniencing their family members would subside. In addition, Ku and Flores (2005) noted that using incompetent and inadequate interpretation services could result in malpractice lawsuits, for both the provider and the institution.

> ...a paramedic [who was not a trained interpreter] interpreted the [Latino] boy's utterance 'intoxicado' as 'intoxicated', but it really meant 'nauseated'. For several days, the boy was worked up for drug abuse. Subsequently, he was found to have damage caused by a ruptured brain aneurysm. The patient ended up quadriplegic and was awarded $71 million in a malpractice case. (Ku & Flores, 2005, p. 437)

This was an extreme example, but it raises implications that failure to correctly interpret may result in serious consequences for all parties involved.

There is also the issue of cultural difference, where a SEA woman may use certain words to describe one thing and the healthcare provider may use another word to describe the same thing. By having a professional interpreter on-site, miscommunication between a healthcare provider and the SEA woman can be decreased. Chinese women living in Vancouver, (British Columbia) and Seattle, (Washington) expressed a need for and lack of medical interpreters as a barrier in accessing preventive services (Jackson et al., 2002). Evidently, it can be implied that having readily available professional interpreters on-site in healthcare settings can minimize the language differences that exist between the healthcare provider and the SEA woman, as well as alleviate stress that both parties may feel. Based on the HBM, professional interpreters can be a motivator for SEA women, thereby increasing the likelihood of access and participation in Pap testing, as well as gynecological recommendations being adhered to since they can understand what and why the procedures are being performed.

7.0 DISCUSSION

7.1 Recommendations and Future Directions

By adopting the HBM, this literature review has identified various contributing factors that hindered the participation of SEA immigrant women in cervical cancer screening services. This section will examine a variety of proposed strategies and interventions in the reviewed literature that attempts to minimize the barriers that SEA immigrant women continually face. In relation to the HBM, their individual, cultural perceptions and beliefs of their susceptibility and severity of cervical cancer largely influence SEA immigrant women. This raises implications that SEA women who are less integrated to the mainstream culture and prescribe to different cultural practices will less likely go for Pap testing. Hou (2002) suggested that cervical cancer screening interventions that target less integrated immigrant groups should have thorough knowledge and understanding of that particular group by taking their demographic information and cultural beliefs into consideration. For instance, when Health Canada develops future interventions and programs for SEA women, understanding of the characteristics of the population (i.e. age, percentage of foreign-born women, English proficiency, and SES) and knowledge of SEA cultural beliefs should be incorporated and focused on in the programs (Hou, 2002). This can result in interventions and programs that specifically target SEA women, incorporating their cultural beliefs into the programs instead of using generic programs that were developed for women of the majority ethnic/racial group, which do not consider the variables that affect women from different minority groups.

Educating SEA immigrant women, by presenting information about cervical cancer in a culturally appropriate way, may increase Pap testing participation. As discussed previously in this paper, SEA immigrant women avoid talking about their body and sexual organs, as well as

lacking adequate sex education (Okazaki, 2002; Woo, Brotto & Gorzalka, 2009). Thus, by merely educating SEA immigrant women will make them aware of cervical cancer risks and prevention options. When using culturally appropriate education materials, they should address the risks of cervical cancer, benefits of Pap testing as a primary prevention method in detecting cervical cancer, provide detailed guidelines as to who should be screened, explain the benefits of early detection and how it can increase a woman's treatment options and their survival rates, and knowledge of available healthcare services in Canada (Donnelly, 2006; Hislop et al. 2003b; Liang et al., 2004). Though these topics do not specifically pertain to SEA women, it is the act of increased education and making SEA women more aware of these facts in culturally and linguistically appropriate materials that may increase their Pap testing participation. Interventions should also emphasize SEA women's cultural views and beliefs positively by incorporating the notion of self-care and family importance into the interventions (Donnelly, 2006; Liang et al., 2004). For example, interventions can include family participation throughout the process for SEA women to feel supported, and nutritional and dietary advice to incorporate the balance of *qi*. Furthermore, interventions should attempt to counter SEA women's negative beliefs like fatalism, and misconceptions about cervical cancer and the screening process. For instance, since there are no symptoms of cervical cancer in the earlier stages and SEA women have low individual perception of susceptibility to and severity of cervical cancer, education materials should address the misconception that the absence of symptoms does not mean that Pap testing is not necessary (Donnelly, 2006). Peek, Sayad and Markwardt (2008) suggested for community health workers to relay positive stories about mammograms that can begin to modify beliefs and attitudes of breast cancer for African American women. Though this recommendation targets African American woman's fatalistic

outlooks of breast cancer screening, their fatalistic beliefs are similar to that of SEA women[14], and so, this recommendation can potentially be applied to SEA women. Evidently, more research is needed in this area, such as what interventions/strategies can change or minimize SEA women's fatalistic beliefs regarding cervical cancer.

Another culturally sensitive approach is to have intervention materials explaining why Pap testing can be beneficial to both the woman *and* her family, considering that family is a large priority for SEA women (Donnelly, 2006). One of the participants in Donnelly's study (2006) even recognized that:

> ...[by] saying that these [Pap] tests will help them live longer is not going to work...you have to say why it's important to prevent the disease. You have to explain to them that even though looking after husbands and children is important, keeping themselves healthy is also important. (p. 97)

Clearly, more research is needed to investigate *how* to present such information to SEA immigrant women because their priority is to their family.

In addition, the education materials should be linguistically appropriate, meaning that information should be provided in the language that is most understandable and accessible to SEA women (Donnelly, 2006; Hou, 2002; Jackson et al., 2002; Lee et al., 1999; Xiong et al., 2010; Yu et al., 2001). Various mediums can be used to present these education materials to promote cervical cancer screening to SEA immigrant women. Culturally-appropriate[15] translation in pamphlets, handouts, booklets, language appropriate information videos,

[14] For more information about African American women's fatalistic outlooks, please see Peek, Sayad, and Markwardt's study (2008).

[15] It is important to understand that mere translation without considering cultural preferences and appropriateness may not be effective, where mere translation carries Western values and ignores the culture that the target audience prescribes to. Thus, by indicating culturally-appropriate translation, this takes in account words that do not have a direct translation into the target language. Translators would need to find other words in the target language that suit the context.

advertisements on the SEA radio stations and televisions channels are a few recommendations suggested in the literature (Donnelly, 2006; Hislop et al., 2003b; Hou, 2002; Liang et al., 2004; Love, Mouttapa, & Tanjasiri, 2009). Unfortunately, there has yet to be a comparison of these various recommendations (i.e. booklets, videos, advertisements) in the literature to demonstrate how effective they are at increasing Pap testing participation, or which recommendation is better than the other; thus, this raises implications for research development in this area. However, Hou (2002) found that advertising information about Pap testing in local Asian newspapers is effective at reaching SEA women and their families. In Canada, based on this evidence the health promoters should look into advertising in Ming Pao (i.e. Chinese population); Thoi Bao (i.e. Vietnamese population), and The Korea Times (i.e. Korean population), which are just a few local Asian newspapers that are popular and widely distributed among various SEA groups.

Love, Mouttapa and Tanjasiri's study (2009) found that culturally and linguistically appropriate information videos were effective at increasing cervical cancer knowledge and promote positive attitudes and screening behaviours among Thai women. They suggested that educational videos like theirs could result in increased screening rates when shown to SEA women in healthcare clinics, on television as advertisements, or in local community centers (Love, Mouttapa, & Tanjasiri, 2009). Love, Mouttapa and Tanjasiri (2009) also raised important aspects when creating the informational video, which were to take into consideration what the preferred entertainment genre is for the target ethnic group (i.e. soap opera format, informational format, etc) and who the actors will be for the video (i.e. having a famous celebrity from their country star in the video, etc). Evidently, there is still a need to explore the SEA preferred format for receiving cervical cancer screening information.

Other studies have suggested that hiring bicultural, multilingual and even lay health workers[16] can be effective in raising awareness of the importance of Pap tests among SEA women, because they can use what they already know of the population and their shared cultural values and beliefs to promote change (Donnelly, 2006; Lam, McPhee, Mock, Wong, Doan, Nguyen, Lai, Ha-Iaconis, & Luong, 2003).

It is important to recognize that interventions/ programs that simply impose Western values on SEA women will not promote behavior change, and may lead to misunderstanding, mistrust and avoidance from the mainstream culture and the programs being proposed (Liang et al., 2004). It is those interventions and education materials that take culture and language into account that can help minimize barriers and encourage the women to participate.

Studies have suggested that the process of educating SEA women on this issue does not solely rest on the government of Canada, but primarily rests on healthcare providers (Hislop et al., 2003b; Lee et al., 2007; Liang et al., 2004). Based on the HBM, an important cue to action for people (including SEA immigrant women) is healthcare provider recommendations and advice. Healthcare providers serving the SEA population need to continue to inform and discuss with their patients about the importance and need for cervical cancer screening (Hislop et al., 2003b). It was suggested that healthcare providers, in particular SEA providers, also be educated in addition to the women (Woo, Brotto & Gorzalka, 2009). Woo, Brotto and Gorzalka (2009) suggested that healthcare providers need to be educated in advising Asian women to have a Pap test, as well as to properly discuss reproductive health with all female patients because they found that there were significantly more European Canadian women than Chinese women who have received recommendations from their healthcare provider to get a Pap test. Donnelly

[16] Lay workers are members belonging to the same community who share the same cultural values and beliefs, and has received some training to promote health or carry out some health services but is not a healthcare professional (Lam et al., 2003).

(2008) found that physicians themselves seemed very "constrained with the cultural aspect" because most often they wait for the Vietnamese women to initiate the need or want for a Pap test (p. 162). This implies that healthcare providers may be reluctant or even avoidant of providing recommendations to Pap testing to SEA women. Healthcare providers should be educated to provide recommendations to SEA women in a culturally sensitive manner, recognizing their cultural background, respecting their values and beliefs about health, and even help patients overcome their personal barriers by providing suggestions to lower the gap between the mainstream culture and their culture (Hou, 2002; Liang et al., 2004). Educating healthcare providers is a variable that can be easily adopted by public health agencies and education programs, as guidelines can be developed and taught to healthcare providers in order to effectively advise and educate Asian immigrant women (Woo, Brotto & Gorzalka, 2009).

Also, healthcare providers in Canada should implement effective reminder systems for women in general, whether it is to contact them by telephone, mail or email, for when they are next due for their Pap testing (Hou, 2002). This is extremely important because, as reported by Donnelly (2006), healthcare providers do not have effective reminder systems in place and they are shying away from contacting or recommending SEA women to come for Pap testing due to the over-looming cultural barriers. Though this intervention seems ideal for increasing the rate of Pap testing, more research needs to be done on why healthcare providers do not have effective reminder systems in place, which may be due to lack of resources, time and workers.

As discussed earlier, SEA women view the healthcare provider as a figure of authority; therefore, though they would listen to the provider's advice, SEA immigrant women often choose not to question or clarify an issue to their provider that they do not understand (Donnelly, 2006). Clearly, communication between the patient and healthcare provider is hindered, and the

hierarchal relationship between a woman and her healthcare provider can be a barrier to such effective communication. Healthcare providers need to be more aware of where, how and when they inform their patients about cervical cancer screening in order to foster an environment with culturally-sensitive and effective communication (Donnelly, 2006). Thus, as suggested by Liang *et al.* (2004), SEA women's participation in cervical cancer screening will improve if the healthcare providers act as reinforcers of regular Pap testing. Healthcare providers should make it an obvious effort to share the decision-making with their patients because this will aid in minimizing the pre-conceptualized hierarchy in the relationship (Donnelly, 2006).

Canada's healthcare system itself needs to be restructured in order to increase SEA women's participation in cervical cancer screening. The number of available female SEA healthcare providers should be substantially increased because as discussed previously, SEA women tend to engage in ethnic matching, as well as have higher rates of screening with a female healthcare provider (Donnelly, 2006). Hospitals and healthcare settings should have increased readily available translation and interpretation services. Since professional interpreters are considered as cues to action, SEA women may be more motivated to go for screening because they are better able to understand the information being relayed to them (Liang et al., 2004). Other systematic recommendations include having healthcare facilities close to high SEA settlement areas, thereby minimizing the spatial mismatch dilemma and the unavailable transportation; and implementing same-day services for Pap testing and simplifying the referral process, which can be a solution for SEA women's lack of time or their perceived complexity of the entire screening process (Liang et al., 2004; Xiong et al., 2010).

Finally, the government of Canada can consider other options, such as increasing the minimum wage, which can alleviate financial hardships for those women who are of low SES.

SEA women may be more willing to participate in cervical screening because their financial situation may be more improved and they can afford childcare during appointments, which allows them to tend to their health. Also, there is a need for government regulations regarding the flexibility/time given by employers to their employees for health-related appointments. Evidently, these are overarching suggestions that cannot be changed within a short amount of time, but they are still potential solutions to consider.

Though a majority of the literature reviewed have provided recommendations, they fail to suggest specific examples or potential interventions and programs that can be investigated in the future with this under-screened population. As well, a majority of the studies did not acknowledge the fact that some of the proposed methods (i.e. increasing number of interpreters and female healthcare providers, further educating physicians, hiring celebrities to act in promotional videos, etc) will cost money and how or where this money will be coming from. Clearly, much more thought and research needs to be further developed in order to find the most cost-effective, culturally and linguistically appropriate method to increase the rate of Pap testing among SEA women.

7.2 Concluding remarks

SEA immigrants are a growing minority group in Canadian society, who is contributing to the Canadian economy; thus, it is very important to investigate why they continue to face health challenges. Though Pap testing is available through Canada's universal healthcare system and is a routine procedure that can effectively identify the onset of cervical cancer, SEA women continue to avoid accessing this screening service. Guided by the HBM, this literature review has revealed a multitude of factors and barriers, such as SES, geographic settlement, SEA

cultural beliefs, linguistic barriers, and physician recommendations that hinder SEA immigrant women's participation in cervical cancer screening programs.

Clear policy implications and culturally sensitive recommendations have arisen from examining these issues. Though there are limitations to the recommendations provided in this paper, future research needs to continue to explore and develop these recommendations, like implementing culturally-sensitive interventions to change the beliefs of fatalism, making SEA women more aware of cervical cancer and its consequences, and further educating healthcare providers. Finally, early detection of cervical cancer can allow for a wider range of treatment options, as well as improve women's prognosis, both in terms of life expectancy and quality of life with the family. Thus, it is an important public health issue to continue to investigate the extent to which SEA immigrant women are engaging in regular screening for cervical cancer, as they are a numerically significant group in Canada's population.

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