

A QUALITATIVE EXPLORATION OF CARDIOVASCULAR HEALTH AND DISEASE
MESSAGES SURROUNDING CANADIAN AND U.S. CAMPAIGNS THROUGH
FACEBOOK AND TWITTER

by

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Abstract

Cardiovascular disease (CVD) is the leading cause of death and disability among Canadian and U.S. women. A majority of Canadian and U.S. women are unaware of their CVD risk profiles, symptoms of acute cardiac events, and take inadequate action to lower their risk. There is limited understanding regarding the meanings associated with Canadian and U.S. cardiovascular health campaign messages and user interactivity with these messages on social media. Filling in this knowledge gap contributes to understanding how women's beliefs and behaviours are shaped by prevalent mass media forums, which construct certain portrayals of women's disease, risk, and health-related identities. Within this doctoral dissertation, four studies were conducted in order to explore the media's role in the social construction of CVD meanings. In the first study, a meta-synthesis was conducted of primary research findings regarding qualitative analyses of mass media narratives surrounding women's CVD in Canada and the U.S. Key findings included two critical, transcendental themes: 1) the medicalized culture of women's CVD risk, and 2) the feminization of cardiovascular healthism. The second study was an ethnographic content analysis of the portrayals of women's cardiovascular risk and health identities on Facebook page narratives of the Heart and Stroke Foundation of Canada (HSFC). An overarching theme of philanthropy as an act of women's health promotion was identified and three sub-themes: 1) a culture of consumerism for women's health promotion, 2) the cardiovascular systems of women as sites of fear and dependence, and 3) women's CVD risk, acute events, and treatment as shared, community experiences. The third study used critical discourse analysis to explore the Facebook page of U.S. women's cardiovascular health promotion agency Women's Heart Alliance to investigate the discourses through which women's CVD was portrayed, and the implications of these discourses on the construction of subject positions for related social agents.

Women's CVD was constructed within two central discourses: a discourse of achieving health equity and a discourse of healthism. These discourses intersected to construct the subject positions of altruistic fighters, health activists, and compliant patients and consumerists. The fourth study comprised a critical discourse analysis of the HSFC More Moments campaign meanings on Twitter for men and women. CVD risk was portrayed through a discourse of tragedy and loss, and a discourse of life and health, which constructed the subject positions of visionary leaders, selfless humanitarians, and successful survivors. Collectively, the findings of these four studies build upon understandings of the media's nuanced contributions to gendered constructions of CVD meanings and risk.

Co-Authorship Statement

Three journal articles have been published from the raw data collected and analyzed within this dissertation. The first is a meta-synthesis of qualitative research findings of U.S. and Canadian media portrayals of women's CVD. The second article comprises a thematic exploration of the narratives used to portray women's CVD on the Heart and Stroke Foundation of Canada Facebook page, as co-constructed by the health promotion organization and public user interactivity with messages. The third article is a critical discourse analysis of the Women Heart Alliance Facebook data, in which interpretations of the discourses and meaningful constructions of subject positions are discussed. To date, findings from this dissertation were presented at one national conference entitled "Canadian Women's Heart Health Summit". My responsibilities included developing the manuscripts, editing the manuscripts, responding to journal reviewer and editor comments, developing the conference presentation content, and delivering the presentation at the conference. The articles and conference abstract were reviewed internally by Laurentian University faculty Drs. Kerry McGannon, Robert Schinke, and Ann Pegoraro who provided mentorship, feedback and helped refine the manuscripts and abstract from development to journal/conference acceptance. The following is a list of the three articles and one conference presentation:

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Chapter 1

Introduction

1.1 Literature background

Cardiovascular disease (CVD) and associated risk factors such as hypertension and type 2 diabetes continue to be the leading cause of death and disability amongst U. S. women and the second leading cause of death among Canadian women (Centers for Disease Control and Prevention [CDC], 2017; Statistics Canada, 2018). Racial, ethnic, and socio-economic disparities exist in clinical manifestations; in particular, Indigenous and South Asian Canadian women, African American and Hispanic American women, and women belonging to lower socio-economic status backgrounds demonstrate greatest risk for CVD (CDC, 2017; Heart and Stroke Foundation, 2012, 2010; Moran & Walsh, 2013). Furthermore, women's general lack of awareness and misaligned beliefs/perceptions of their personalized risk have been noted to contribute to all women's risk and particularly high incidences of this group of diseases by minority women (e.g., racial and ethnic minority groups and those reporting lower socio-economic status backgrounds) (Flink et al., 2013; Mosca et al., 2013). There is a lack of understanding about cultural values, norms, and traditions that may promote safe and sustainable health practices among those women at greatest risk such as Indigenous women (Prince et al., 2017; Reading, 2015).

Taken-for-granted (re)presentations of CVD and risk factors in mass media's circulated narratives have been reported to contribute to women's cardiovascular health beliefs and perceptions (Clarke, 2010; Tindall & Vardeman-Winter, 2011). In this dissertation, the term "(re)presentations" refers to the meanings with which CVD portrayals are contextualized in the media and within which women at CVD risk are positioned (e.g., historical and political

contexts). Literature findings indicate that the messages and meanings conveyed through media narratives problematically portray which women are at greatest risk (e.g., affluent, White women) and how CVD can be prevented (e.g., complete dependence on medical, pharmaceutical, and fitness industries) (Clarke & Binns, 2006; Clarke & van Amerom, 2008). Gender roles for all women at risk were limited to those who engaged in caregiving responsibilities towards their husbands and children, had the inclination and financial means to purchase designer dresses, and whose body shape was thin/lean (Clarke & Binns, 2006; Clarke, van Amerom, & Binns, 2007; Gonsalves, McGannon, Schinke, & Michel, 2016). As such, women from backgrounds other than White, affluent, heteronormative demographics and those without the inclination to engage with the entertainment and fashion industries, were excluded from health messages, despite their greater risk (Clark et al., 2016; Gonsalves et al., 2015). These interpretive, constructionist driven studies are limited in number with only 11 articles published to date, and the authors did not examine messages circulated on social media platforms (Clark et al., 2016; Clarke 1992, 2010; Clarke & Binns, 2006; Clarke & van Amerom, 2008; Clarke, van Amerom, & Binns, 2007; Compton, 2006; Edy, 2010; Gonsalves, McGannon, Schinke, & Pegoraro, 2016; Harding, 2010; Wharf Higgins, Naylor, Berry, O'Connor, & McLean, 2006).

Researchers have explored the portrayals of CVD on Facebook and Twitter using quantitative methods and have shown the construction of men's and women's CVD management as achievable through donations to more capable gatekeepers of health (e.g., Diabetes U.K. and British Heart Foundation) (Farmer, Bruckner Holt, Cook, & Hearing, 2009; Sinnenberg et al., 2016). Stroke and CVD risk factors (diabetes and high blood pressure) were associated with the marketing of products (Hale et al., 2014), and access to the National Library of Medicine's PubMed database which problematically limited health information access for individuals with

lower levels of health literacy (Farmer et al., 2009). Thus, some meaningful data regarding social media messages surrounding cardiovascular health and identities are known from quantitative studies. However, considerations of gender and other socio-cultural influences are absent from such literature. In other words, scholarship exploring Facebook and Twitter portrayals of CVD has lacked interpretive, qualitative perspectives regarding meanings and implications of portrayals and identity construction. This area of research is worthy of investigation given the new direction in health care whereby public health messages are disseminated on Facebook and Twitter (Duggan & Smith, 2014; Lupton, 2016, 2014c). Additionally, a large number of individuals receive their health information through the media, a majority of Facebook and Twitter users are women, Facebook and Twitter offer opportunities for interactive health communication, and health promotion delivery through Facebook and Twitter occurs over multiple formats (i.e., text, images, videos, GIFs) (Bailey Merz et al., 2017; Duggan & Smith, 2014; Lupton, 2016, 2014c; McDonnell et al., 2014). From a critical health psychology perspective, media portrayals of health and illness position certain agents in power over public health with particular ideologies and notions surrounding risk reduction, which women draw upon in making sense of their risk and bodies (Lupton, 2015). Such portrayals are problematic because their meanings promote the notion that women's health requires risk surveillance as a moral obligation of expert gatekeepers which serve corporate and industry interests (Lupton, 2014; McGannon, Berry, Rodgers, & Spence, 2016). Women who develop disease risk are thus positioned as morally irresponsible for having failed to manage their health and as burdens to the medical industry, which strips their identities from any power in engaging in risk reducing behaviours within their means (Gibson, Lee, & Crabb, 2015; McGannon et al., 2016; Berry, Oliphant, & Norris, 2018). When women are positioned as out of control over their bodies and

health, the benefits of healthy lifestyle changes known to reduce CVD risk by up to 82% (Stampfer et al., 2000) are subverted. This use of talk and text works to maintain the status quo of gatekeeper control for corporate gain (Gonsalves et al., 2015).

1.2 **Dissertation overview**

This dissertation consists of nine Chapters. Chapter two consists of literature reviewed on women's CVD and prevalence, mass media portrayals of women's CVD, health (re)presentations and health identities on Facebook, and CVD portrayals on Twitter to contextualize the gaps in literature, and dissertation studies and purpose. In Chapter three, media platforms and data sources are contextualized by describing Facebook and Twitter, the Heart and Stroke Foundation of Canada, Women's Heart Alliance, and #MoreMoments campaign. Chapter four contains information about the research paradigm, ontology, and epistemology informing the studies within this dissertation, followed by a section on researcher reflexivity. The methodologies and methods of the four studies are then presented which include meta-synthesis, ethnographic content analysis, critical discourse analysis, and a report on the research ethics of social media data. In Chapter five, the two research questions are presented, followed by the results and discussion of the meta-synthesis articulated through three themes; the construction of women at CVD risk, the portrayal of risk reducing strategies and acute cardiac events, and the delegation of responsibility for maintaining women's cardiovascular health. These themes are discussed in relation to the medicalized culture of women's CVD risk, and the feminization of cardiovascular healthism. Chapter six contains the research questions, and results and discussion of the Heart and Stroke Foundation of Canada Facebook data, the latter of which is discussed within an overarching theme of philanthropy as an act of women's health promotion, and the following three sub-themes: a culture of consumerism for women's health promotion, the

cardiovascular systems of women as sites of fear and dependence, and, women's CVD risk, acute events, and treatment as shared, community experiences. In Chapter seven, the research questions that guided the Women's Heart Alliance Facebook page study and the findings from the critical discourse analysis are outlined within two discourses (discourse of health equity, and discourse of healthism), with three subject positions (altruistic fighters, health activists, and compliant patients and consumers). Chapter eight contains the research questions, and results and discussion of the #MoreMoments Twitter data study which comprised a discourse of tragedy and loss, a discourse of life and health, and the subject positions of visionary leaders, selfless humanitarians, and successful survivors. Finally, in Chapter nine, critical conclusions of the four studies are presented and future research directions are noted.

Chapter 2

Review of Literature

2.1 Overview of women's cardiovascular disease and prevalence

The term CVD refers to diseases of the cardiovascular system such as coronary heart disease, peripheral arterial disease, and congenital heart disease (World Health Organization, 2016). The risk factors for this group of diseases include physical inactivity, hypertension, high cholesterol, diabetes or pre-diabetes, obesity and central adiposity, and cigarette smoking (Mosca et al., 2011). Performance of risk-reducing behaviours through a combination of moderate intensity physical activity (e.g., brisk walking, bike riding) and vigorous intensity physical activity (e.g. jogging, cross-country skiing) for 150 minutes/week, healthy diets, and abstinence from cigarette smoking have been noted to decrease risk for coronary heart disease by up to 82% (Canadian Society for Exercise Physiology, 2012; HSFC, 2017a; Stampfer et al., 2000). CVD is the leading cause of death and disability among U.S. women and the second leading cause of death among Canadian women (CDC, 2017; Statistics Canada, 2018). Historically and through the 21st century, CVD has been socially and medically constructed as a disease that is limited to the male sex and gender and those from high socio-economic status backgrounds (Lockyer & Bury, 2002). Symptoms of heart attacks have been typically associated with men's experiences versus women's experiences and have included pain or discomfort in the chest area (Kreatsoulas et al., 2013; World Health Organization, 2016). Recent investigations have uncovered that women's symptoms tend to be different from those reported by men, and include dry mouth, shortness of breath, nausea, vomiting, back and jaw pain, and pain radiating down the left arm (Kreatsoulas et al., 2013; World Health Organization, 2016). Additionally, representation of individuals who identified with the biological concept of the female sex have been consistently

minimized in the scientific understanding of this group of diseases, rendering medical diagnoses and treatment limited and insufficient in women (Chou et al., 2007; Moran & Walsh, 2013).

Demographic disparities exist in clinical presentations of CVD with women of particular racial and ethnic backgrounds and socio-economic status backgrounds demonstrating greater incidence. In particular, U.S. women of African-American, Hispanic American, Alaskan American, Native American, and Pacific Islander American races and ethnicities are female demographics at greatest risk (Mozaffarian et al., 2015). In Canada, South Asian Canadian and Indigenous Canadian women experience greater risk of CVD in relation to the overall female Canadian population (Heart and Stroke Foundation of Canada, 2010). Across North America, women of lower-income socio-economic backgrounds are at greater risk in comparison to women of higher-income socio-economic backgrounds (Moran & Walsh, 2013). Disparities in women's awareness of their personal risk and knowledge about CVD are linked with their racial and ethnic background and socio-economic levels, having a compounded effect on disease prevention (Flink et al., 2013; Mochari-Greenberger, Miller, & Mosca, 2012; Mosca et al., 2013; Munoz et al., 2010). Mosca et al. (2013) showed that African American and Hispanic American women's knowledge of women's leading cause of death was approximately 36% and 38%, respectively, whereas 56% of the overall female U.S. participants were knowledgeable. A majority of Canadian women are unaware of risk factors associated with CVD (25% demonstrated a high level of knowledge), symptoms of acute cardiovascular events (e.g., 29% identified pain radiating to the shoulder, neck or arm), and their own risk for developing CVD (of the 40% at high risk attributable to unhealthy lifestyles, 78% perceived themselves to be at low or moderate risk) (McDonnell et al., 2014). This limited knowledge by women of minority racial and ethnic backgrounds is problematic since these female demographics demonstrate

greater incidences of CVD and risk factors (Mozaffarian et al., 2015; Heart and Stroke Foundation of Canada, 2010). Lack of awareness of risk by those women at greatest risk is aligned with broader health notions and ideologies, meanings of which are inherent in mass media messages (Clarke 2010; Gonsalves et al., 2015). These problematic portrayals are discussed in the following section.

2.2 The mass media and women's cardiovascular disease

Women's perceptions about their risk of disease and reality of illness have been linked to the circulation of certain mass media narratives (Wharf Higgins et al., 2006; McGannon, Berry, Rodgers, & Spence, 2016; McGannon & Spence, 2012; Norris et al., 2016). As the term is used here, "mass media" refers to communications through particular channels such as magazines, television, and Internet sites that reach a large number of people whose life experiences are influenced through meaningful interpretations of worldviews centralized in these communications (Altheide & Schneider, 2013). Narratives circulated by the media perpetuate taken-for-granted notions about women's health and bodies by contributing to the development of personal meanings associated with women's bodies, and the experiences of health, illness, and disease prevention (Glenn, McGannon, & Spence, 2013; McGannon & Spence, 2012; Willig, 2000). These stories and identity constructions within them form a part of the repertoire of awareness, knowledge, and beliefs held by women that are shared by other members of their community and culture who are all active recipients of information (Altheide, 2000a; Althiede & Schneider, 2013). These belief patterns and cultural norms further influence social action including health-related beliefs and behaviours (i.e., potential embodiment of assumed and internalized gender-related roles, engagement in risk-reducing behaviours) (Altheide, 2000a; Althiede & Schneider, 2013; Clarke, 2010; Clarke & Binns, 2006; Lyons & Chamberlain, 2017).

Identification of the construction of cardiovascular health promotion and disease prevention for women through media are worthy of investigation as health-related meanings serve as resources for women negotiating their life roles in relation to their health (Clark et al., 2016; Gonsalves et al., 2015). These narrative and discursive resources ultimately influence women's lifestyle choices related to risk reduction (Gonsalves et al., 2015).

Narratives circulated in Canadian and U.S. print magazines and newspapers that cater to men and women, position responsibility for women's cardiovascular health and recovery as shared between numerous social agents, as follows; experts gatekeepers (e.g., the medical, pharmaceutical, and fitness communities), social support providers (e.g., social networks, family members), political bodies (e.g., Government, policy-makers), and women themselves (Clarke & Binns, 2006; Clarke & van Amerom, 2008; Gonsalves et al., 2015). The dependence on the medical community was accomplished through narratives that focussed solely on the anatomy of the cardiovascular system by reducing disease to the level of arteries, and by positioning the medical and pharmaceutical communities as gatekeepers of practical knowledge in magazines that catered to both men's and women's interests (Clarke 1992; Clarke & Binns, 2006; Clarke et al., 2007).

When interpreted through a critical lens, dependency on others favoured a medicalized frame for perceiving women's CVD, maintained the position of social power which is required for institutional control, and ensured corporate gains (Clarke et al., 2007; Gonsalves et al., 2015). Women's agency in taking control of their cardiovascular health was described through a culture of consumerism by using health promotion as a marketing tool to promote sales of fitness merchandise and services such as treadmills and gym memberships, as well as products and services of specialists and pharmaceutical companies (Gonsalves et al., 2015). This finding was

noted in narratives disseminated in the inaugural partnership issue of women's *Glamour* magazine with *The Heart Truth* U.S. campaign to increase women's awareness about their risk and encourage women to take urgent action to lower their risk (Gonsalves et al., 2015). Social support networks comprising family, friends, and community members were positioned as a resource with which women could recover from acute cardiac events, while the benefit of social support in engaging in preventive behaviours was minimized (Fotiadou, Northcott, Chatzidaki, & Hilari, 2014). This finding was reported by scholars who analyzed stroke and aphasia blogs (i.e., conversational-style personal webpages) (Fotiadou et al., 2014).

Finally, women's agency was further diminished through narratives that constructed the necessity for women to advocate for policy-level changes, increased funding for scientific investigations, and increased recognition of their unique symptoms from the medical community in magazines and newspapers that cater to men and women (Clarke et al., 2007; Roy, 2008; Savoie et al., 1999). Through taking stock of the foregoing narratives, it is evident that control over women's health and bodies is ultimately tied to agencies in social and political power, constructing identities of dependence and reliance for women at risk for CVD. Women at risk for CVD were constructed as possessing limited agency and control over their bodies and CVD was portrayed as a fearful experience, which have been noted to lead to maladaptive coping strategies such as ignoring one's health risk and intentionally disengaging from risk-reducing behaviour within one's means (O'Keefe & Jensen, 2007; Peters, Ruiter, & Kok, 2013). Thus, women without the financial means to seek specialty treatments or purchase particular pieces of merchandise within the culture of dependency and consumerism (i.e., those from lower socio-economic backgrounds) were excluded from the construction of women at CVD risk.

Another set of narratives in the mass media constructed various identities for women

based on certain gender expressions and roles. Particularly, women's forms of gender expressions were limited to a narrow version of femininity that linked cardiovascular health with thin body shapes, level of attractiveness to men, caregivers to husbands and children, and the health of women's reproductive organs (Clark et al., 2016; Clarke, 1992; Clarke et al., 2007; Edy, 2010; Gonsalves et al., 2015). These narratives excluded the identities of women who identify with diverse forms of gender expression and norms, reproduced the construction of women's gender roles based on their childbearing capacities, and ultimately limited the goal of their engagement with health behaviours with increasing their sexual appeal (Gonsalves et al., 2015; Jette, 2011; Ussher, 2006). Whereas acute cardiac events was portrayed as signs of career-related success for men, these events was associated with shame for women (Clark, 2010; Clarke et al., 2007). Further, CVD was positioned as a hindrance to the progression of women's careers (Clark, 2010; Clarke et al., 2007).

Women at risk for CVD were also explicitly positioned as belonging to high socio-economic status backgrounds and middle-aged (e.g., female celebrities in the entertainment industry) in magazines and late-night television talk shows (Compton, 2006; Gonsalves et al., 2015). These gender portrayals of women are problematic because they exclude the diversity in the demographics of all women who are at risk, particularly those are at greatest risk as discussed previously (e.g., lower socio-economic backgrounds, minority racial and ethnic backgrounds.). The implications of these narratives are that women at greatest risk are consistently excluded from circulated meanings attached to women's CVD prevention which provides an explanation for least awareness among these demographics. Articles, advertisements, videos, and testimonials employed by *The Heart Truth* Canadian campaign positioned all Canadian women at risk to be middle-class mothers (Clark et al., 2016; Norris et al., 2016). The benefits of risk

reducing behaviours such as personalized forms of physical activity and affordable dietary modifications were minimized when mass media narratives focussed on prevention recommendations that catered to women of higher socio-economic backgrounds and employed in stressful employment positions (e.g., stress reduction through spa services, drinking a glass of wine/day, annual vacations) (Clarke & Binns, 2006; Clarke & van Amerom, 2008). Affluent lifestyles and focus on treatment versus prevention were also implied in the previously discussed media message that instructed women to seek specialist consultations, the latest surgical and pharmaceutical innovations, and political changes (Clarke & Binns, 2006; Clarke & van Amerom, 2008; Clarke et al., 2007).

In addition to limiting women's identities to certain gender expressions, roles, and socio-economic backgrounds, identities for all women at risk for CVD were constructed in terms of race and ethnicities. Particularly, when images were provided in media stories, these predominantly constituted White women and indications of race and ethnicity were absent in mass media text, which excluded their identities from the social construction of all women at risk (Clarke, 2010; Norris et al., 2016). In addition to this finding being noted as an observation of critical scholars studying mass media narratives, women of diverse racial and ethnic backgrounds reported their perceptions and interpretations of campaign materials of the aforementioned *The Heart Truth* campaign as being limited to White, affluent female demographics (Tindall & Vardeman-Winter, 2011; Vardeman-Winter & Tindall, 2010).

2.3 Social media and health

Social networking sites have been defined as web-based services with which users engage electronically with community members by adding social contacts, joining discussions, sending messages, and sharing content (Korda & Itani, 2013). Facebook is a social networking

site that allows users to create profiles, pages, and groups to interact with other users, and view and compare personalized content with other users (Boyd & Ellison, 2008). Various benefits to health and wellness have been noted with regards to social media use for sharing and consumption of health-related content, while critical analyses of messages have revealed problematic portrayals of health on social media. A systematic review of 98 primary research studies published between 2007 and 2012 provided a synthesis of the uses, benefits, and limitations of social media with regards to health communication (Moorhead et al., 2013). Moorhead et al. (2013) showed that social media users have accessible and tailored health information, greater peer and social support, and the potential to influence health policy. For example, social media platforms for which content pertained to certain disabilities have been noted to deliver online social support for otherwise marginalized groups (Giles, 2014). Three types of health behaviours have been associated with social media use; active health seeking, health scanning behaviours, and health information avoidance behaviours (Smith & Smith, 2015). ‘Active health seeking’ refers to the search and retrieval of specific health information by users, ‘health scanning behaviours’ refers to the passive and incidental gain of health information through users’ daily online activities and interactions, and ‘health information avoidance behaviours’ serves either as a coping mechanism in reaction to diagnoses or stem from distrust in online information sources (Smith & Smith, 2015). In addition to simplistic information sharing, scholarship on online discussion groups regarding the use of pharmaceutical drugs revealed that individuals express multiple personal identities, and various forms of concepts and experiences regarding the embodiment of health (Fox & Ward, 2006).

Social networking sites have afforded public health organizations opportunities to engage in health promotion and public health surveillance through the creation and sharing of content

and the public's participation with these messages (Davey & Lupton, 2015). Undisclosed campaigns concerning healthy eating and physical activity promotion on Facebook typically exclude social, cultural, and political considerations such as income levels and education levels which are noted to influence engagement in these behaviours (i.e., healthy eating and performance of physical activity) (Davey & Lupton, 2015). In this way, certain health messages on social media may contribute to the perpetuation of social inequities with negative consequences to the implementation of health practices (Davey & Lupton, 2015). When government and health care institutions collect public health data through the public's interactions with digital technologies and provide services via digital technologies, the identities of socially marginalized groups who do not engage with social media may be excluded (Lerman, 2013). Facebook has been conceptualized as an instrument and an online health market through which norms about social power between individuals and health organizations is constructed and perpetuated in ways that meet marketing goals of organizations (Hunt & Koteyko, 2015).

The recent discipline entitled "critical digital health studies" comprises the identification of the social, cultural, ethical and political aspects of the phenomenon of digital health (Lupton, 2014b). As Lupton (2016, 2015) noted, health care, biotechnology, and pharmaceutical companies disseminate implicit and explicit health messages on Facebook and Twitter, which require critical analysis to uncover their social and cultural implications. Social media platforms have been positioned as sociocultural artefacts, products, and enactments through which social norms and assumptions are reflected and (re)produced to construct particular perspectives of the human body and health by health-related institutions and other individuals (Lupton 2015, 2014a). Further, critical digital health studies explore how these forums circulate and generate "knowledge", and social and power relations (Lupton, 2014b). The utilization of Facebook by

U.S. State Health Departments was noted to comprise greater emphasis on miscellaneous topics such as employment postings, meetings, and weather updates, versus the promotion of healthy lifestyles such as physical activity and healthy diets between July 2013 and January 2014 (Jha, Lin, & Savoia, 2016). This finding indicates the apparent disconnection between the meanings of messages disseminated by U.S. health care institutions and the appropriate provision of health-related messages to social media consumers of their Facebook posts (Jha et al., 2016).

The uptake of digital health messages is influenced by individuals' social and structural considerations such as age, gender, sex, ethnicity/race, and socioeconomic status which require examination to understand how people engage with these messages (Lupton, 2015). Particularly, critical examinations of the social constructions of health and illness in ways that highlight the social implications/consequences of narratives of disease risk in a digital risk society have been called for by Lupton (2015). Scholars in this area have identified identity construction based on the neo-liberal political concept of "healthism" within which individuals at risk were characterized with ideals of citizenship and individual responsibility over their bodies (Lupton, 2016; McGannon, Berry, Rodgers, & Spence, 2016). This concept of healthism promoted self-management and self-care while further positioning individuals at risk as victims to be blamed for their deviant and deficient morality, lack of self-control, and ignorance for their failure to engage in health promotion behaviours (Lupton, 2016, 2014c). Examples of acts of healthism include physically active lifestyles and consumerism of specialty medical services, which are portrayed as moral imperatives and contextualized with high social standing and income levels (Gonsalves et al., 2017a; Cheek, 2008). Health promotion through digital technologies benefit social groups and institutions in power (Lupton, 2014c). The borders between health care delivery, consumer marketing, corporate programs, and self-initiated health promotion are often

blurred (Lupton, 2014c). As noted by Lupton (2013), preventive health may be achieved by technological means by digitally engaged, “empowered” individuals who possess body-monitoring expertise previously limited to health care providers, but now readily available to the public as a result of digital health promotion. Although current U.K. health policies that shifted practitioner-patient relations to patient-centered care, associates users of digital technologies with empowerment, and greater choice and control, this newfound sense of agency is constrained, and paradoxically contextualized within the medical model (Powell & Boden, 2012). Individuals’ access to expert knowledge positions responsibility for public health in the hands of medical professionals, and normative constructs of wellness fit with bio-medical models of health and disease (Powell & Boden, 2012). The present dissertation studies were positioned broadly within the discipline of critical digital health studies in light of the focus on critical and constructionist analysis of the meanings and impacts of health messages disseminated via social media platforms on risk reducing behaviours, digital social inequalities, and the exploration of the medicalization of health on digital health technologies (Lupton, 2015, 2014b).

2.4 Facebook, health (re)presentations, and health identities

There is a lack of qualitative, interpretive understanding about how CVD is portrayed on Facebook pages, user profiles, and user comments. However, authors of critical media studies have explored the portrayals of one CVD risk factor – type 2 diabetes – on Facebook pages. Hunt (2015) conducted a critical social semiotic analysis of the Facebook pages of U.K.’s largest diabetes charity entitled “Diabetes UK” which provides patient information and support, and engages in campaigns and research funding, and a company entitled “Diabetes.co.uk” which provides patient information and support, and advertising space. Within this study, subject

positions were identified, which are sets of conceptual resources and interpretive vantage points made available to social agents when they are positioned within particular discursive practices (Davies & Harré, 1990). The term “discursive practices” refers to the functions and effects of groups of patterned ways of thinking within social, cultural, historical, and political contexts (Davies & Harré, 1990; Wetherell, 1998). The following three subject positions were constructed for individuals with diabetes and the act of fundraising; (a) the portrayal of diabetes as desirable, which blur the boundaries between health and illness, (b) the construction of charitable fundraising as enjoyable and worthwhile activities between volunteers and beneficiaries of funds, and (c) an emphasis on the social disconnection experienced by individuals with unsuccessful diabetes management (Hunt, 2015). These identities for individuals with diabetes were problematized because they were overly optimistic for successfully self-managing diabetes, further positioning those who were unable to manage the disease as having failed personal and familial responsibilities (Hunt, 2015). Additionally, the omission of the companies that received donated funds from narratives minimized and/or hid their role in managing the spending of donated funds (Hunt, 2015).

A further exploration of the Facebook pages of the two foregoing organizations (i.e., “Diabetes UK” and “Diabetes.co.uk”) and a support-oriented diabetes website funded by the Scottish National Health Service entitled “My Diabetes My Way” was conducted by Hunt and Koteyko (2015) using critical discourse analysis. Through the use of Facebook pages, these organizations’ health narratives comprised the neoliberal promotion of individual responsibility and self-surveillance that followed, and was enabled through advice from expert health professionals (Hunt & Koteyko, 2015). The Facebook content promoted health care consumerism and social activism as primary solutions to take care of individuals’ unhealthy

lifestyles in ways that subverted the influence of social inequities and deprivation on type 2 diabetes incidence (Hunt & Koteyko, 2015).

Other authors reported a more optimistic interpretation of Facebook content on diabetes management. The posts and comments on a Facebook peer support group for individuals with diabetes and their caregivers entitled “Diabetes” from September 25, 2011 to October 1, 2011, were collected and examined using content analysis (Zhang, He, & Sang, 2013). Zhang et al. (2013) reported that three main themes emerged from the 1352 diabetes messages; eliciting and providing information about diabetes (e.g., symptoms, medical treatments, lifestyle factors), seeking and providing emotional support (e.g., managing diagnosis denial, encouragement), and community building between the Facebook group administrator, core members, and general participants. Zhang et al.’s (2013) interpretations of these findings revealed that Facebook groups with diabetes-related content have the potential to provide peer companionship through community building in managing diabetes (e.g., exchanging of medical and lifestyle information, providing and receiving encouragement and affirmation).

Greene, Choudhry, Kilabuk, and Shrank (2010) conducted a content analysis of the 15 most recent “wall posts” of the 15 largest diabetes Facebook groups (233 wall post comments), and the 15 most recent discussion topics of the ten largest diabetes Facebook groups (457 discussion topic comments) on August 8, 2009. “Wall posts” refer to group member comments on a Facebook page to inquire or communicate with all group members, and “discussion groups” refer to conversational topic-based threads through which group members provide their responses to initial and subsequent discussion comments (Greene et al., 2010). In addition to health-related information-sharing, patient-centered management, and community-building, these authors identified marketing and data collecting functions of the Facebook diabetes groups

as themes (Greene et al., 2010). A majority of the Facebook data focussed on the medical frame within which pharmaceutical treatments and physiological symptoms/experiences were discussed with minor mention of lifestyle changes, such as physical activity, that could help manage and prevent further diabetic complications (Greene et al., 2010). Advertising was a prominent theme feature across all wall posts and threads, with 36% of these advertisements related to products not approved by the FDA, indications of consumer trust in Facebook advertisements, and limited peer checking of accountability or authenticity of advertised products (Greene et al., 2010). Although Greene et al. (2010) did not critically evaluate the implications of such a focus on the medical frame and marketing, their results indicate the problematic portrayal of diabetes on Facebook groups. These portrayals are aligned with the social construction of a dependence on expert gatekeepers within a neo-liberal model of healthism, as defined and discussed earlier in this Chapter.

Other scholars conducted analyses of Facebook content related to health with quantitative theoretical underpinnings, which provide some insight into the frequency of specific information regarding CVD and risk factors in today's mediated society. A content analysis of 953 Facebook pages between September 2007 and June 2012 revealed that in comparison to other health conditions such as cancers and arthritis, 66.7% of all patient support pages contained information specific to stroke and 40.5% of all awareness raising pages were dedicated to diabetes (Hale, Pathipati, Zan, & Jethwani, 2014). Stroke and CVD risk factors were also associated with marketing of products and services (i.e., 29.7% of marketing messages pertained to diabetes, 16.7% to stroke, and 10.8% to blood pressure) (Hale et al., 2014). Another content analysis of Facebook groups between December 2007 and January 2009 was conducted by Farmer et al. (2009). Farmer et al. (2009) reported that national charity organizations such as Diabetes UK and

the British Heart Foundation offered virtual gifts that users could give to their Facebook contacts in exchange for their donations. Further construction of CVD within the medical frame and neo-liberal healthism was noted on one Facebook group which offered users the opportunity to publish a Medline indexed citations list that was linked to the National Library of Medicine's PubMed database (Farmer et al., 2009). The content of 527 diabetes Facebook group messages posted in July 2011 was examined using content analysis by De la Torre-Díez, Díaz-Pernas, and Antón-Rodríguez (2012). Over a quarter (25.09%) of social interactions between users involved support for scientific investigations to find a medical cure for diabetes, 23.06% of messages comprised social support for individuals living with diabetes and their relatives in managing their daily lives, 11.62% was dedicated to information sharing about diabetes, 6.27% pertained to raising awareness, 5.35% entailed fundraising for treatments and scientific investigations, 7.74% of the messages covered disease prevention, and smaller percentages of messages were dedicated to the "fight" against diabetes and promotion of new technologies to manage diabetes (De la Torre-Díez, Díaz-Pernas, & Antón-Rodríguez, 2012).

These quantitative research findings about diabetes (a risk factor for CVD) portrayals on Facebook provide some indication of the problematic medicalization of disease risk, there is a complete lack of qualitative research on CVD portrayals on Facebook. Taking stock of the foregoing findings of the portrayals of CVD risk factor diabetes on Facebook groups and posts, it is evident that ultimate control of human bodies is placed in the hands of gatekeepers positioned as more capable and powerful in managing the health of those at risk, with individuals at risk performing the roles of activated patients. This narrative poses problematic consequences to risk reducing behaviour engagement since women are positioned as being out of control over their bodies, and identities for all women at risk are limited to those with the resources and inclination

to seek specialist health services.

2.5 **Twitter and cardiovascular disease**

Very limited literature currently exists about CVD and risk factor portrayals on Twitter. Sinnenberg et al. (2016) conducted a mixed-methods study to investigate the content and volume of Tweets about CVD and the characteristics of Twitter users from 550,338 Tweets collected between July 23, 2009, and February 5, 2015. The frequency of use of the terms “diabetes” and “myocardial infarction” was greater than the use of term “heart failure” (Sinnenberg et al., 2016). In comparison to the general Twitter user population, those who tweeted about CVD were more likely to be older with a mean age of 28.7 years versus 25.4 years, and less likely to be male (47.3% versus 48.8%) (Sinnenberg et al., 2016). Commonly discussed CVD topics included risk factors (41.9%), awareness within the context of fundraising (23.4%), and disease management through diet and exercise (21.6%) (Sinnenberg et al., 2016). In making sense of their findings, Sinnenberg et al. (2016) noted that Twitter is a useful platform for studying public communication about CVD. Some risk factors for CVD such as hypertension are under-Tweeted in comparison to their prevalence, versus other risk factors such as diabetes are over-Tweeted (Weeg et al., 2015). Widmer and Timimi (2017) noted that a larger percentage of cardiovascular hashtags are driven by health care institutions (54%) versus health care providers (36%). Similar to current knowledge about Facebook messages, studies about CVD portrayals on Twitter were conducted from a quantitative research perspective without determination of user consumption of messages with meaningful interpretations.

2.6 **Literature gaps**

Based on each of the literature sections reviewed, the following major gaps were identified in relation to learning more about gendered CVD portrayals in the media and the

implications:

(a) The term “traditional media” refers to uni-directional messages communicated through newspapers, television, magazines, and radio, and the term “user-generated media” refers to Internet-based social networking services like Facebook and Twitter (Korda & Itani, 2013). Lupton (2015) positioned user-generated media content through social media as sociocultural artefacts, products, and enactments through which social norms and assumptions are reflected and (re)produced to construct particular perspectives of the human body and health. Qualitative research has been conducted on the social construction of risk-reduction portrayals in traditional media narratives and user-generated media narratives. A coherent understanding is required about the ways in which these findings support common meanings that potentially reproduce particular ideologies or involve different meanings with opportunities for novel identity constructions and behaviour implications. Understanding was developed through various methodologies such as content analyses, narrative inquiries, and thematic analyses, positioned within disparate academic disciplines and forming separate bodies of literature. Thus, there is a need for a synthesis of these findings, over time, to understand how these messages may have evolved in recent history and across various political and cultural contexts to shape current beliefs and perceptions of CVD risk.

(b) Meanings and constructions surrounding women’s CVD and identities have been noted in some studies (e.g., women’s gender roles limited to heteronormative caregivers, risk reduction promoted by dependence on gatekeepers) that examined print media such as magazines and newspapers, and websites. However, these studies are limited in number and/or out-dated given the dynamic media environment. The majority of recent studies that have explored media portrayals of women’s CVD have also been conducted with qualitative research methodologies

grounded in positivism. These studies have been fruitful in providing statistical findings with which CVD and risk factors have been noted in media narratives (e.g., frequencies of use of particular terms), but there is a lack of understanding about mass media portrayals from an interpretive paradigm with implications for social identities and social action. Unlike content analyses of data, interpretive qualitative insights of mass media narratives afford opportunities to explore the nuances of culture (i.e., collections of taken-for-granted meanings and images), and specific contexts and significance of narratives that contribute to women's beliefs and behaviours as these portrayals construct centralized or dominant ways of thinking that may go unchallenged (Altheide & Schneider, 2013). The 11 studies that have explored women's CVD and media representations using an interpretive qualitative approach have shown the construction of women's identities as limited to White, affluent, heteronormative versions of femininity who depend on gatekeepers such as medical specialists to control their risk of CVD (Clark et al., 2016; Clarke 1992, 2010; Clarke & Binns, 2006; Clarke & van Amerom, 2008; Clarke, van Amerom, & Binns, 2007; Compton, 2006; Edy, 2010; Gonsalves et al., 2015; Harding, 2010; Wharf Higgins et al., 2006). Beyond these findings, the ways in which CVD and women's risk reduction is constructed by social media sources, and the potential implications on health-related choices using interpretive qualitative research methods is lacking. Within this dissertation, the term "social media" was conceptualized as a hybrid form of social interaction and traditional media which involves not only individual user interaction with media, but multi-directional interaction with others on specific media platforms known as social networking sites (Altheide & Schneider, 2013). Critical interpretive studies about multidirectional CVD communications on social networking sites Facebook and Twitter may provide clarification and context to health notions and perspectives centralized in traditional media messages, while also providing an

opportunity to investigate user resistance to dominant meanings and concepts.

As noted in this literature review of studies on women's health portrayals on Facebook and Twitter, these forms of media are important to focus upon because of the high rate of usage by women, the diversity in women's demographics represented in user profiles, the dissemination of cardiovascular health information by health care institutes on this forum, and women's online cardiovascular health information seeking behaviours. Social media platforms are cultural sites of meaning-making which draw on dominant, shared ideologies and notions in messages, indicating narrative and discursive resources available for individuals to take up in making sense of their health and identities. Thus far, investigations have led to an understanding about the percentages and frequencies with which CVD and risk factors, particularly diabetes, are mentioned on various Facebook pages and Twitter posts. In terms of CVD and health promotion campaigns, the meanings behind the messages conveyed to users and users' engagement with these messages through their own posts is still not known. Tying in with what Lupton (2016, 2014c) has noted about social media as a critical, cultural site of identity and health meanings, and also the underlying assumptions discussed in the first gap above regarding interpretive approaches to media analysis, studying Facebook and Twitter in relation to women's CVD campaign meanings provides the opportunity to explore the social and cultural construction of meanings in everyday life. These interactive forms of mass media via user interactivity through post and comments on Facebook pages and Tweets provide the opportunity for researchers to investigate how users give meaning to information that is presented to them and how such information is contextualized by users' engagement with historical, medical, and political agencies, which has not been afforded thus far in other media studies/approaches. Current media studies regarding women's CVD have either qualitatively investigated print media

as data sources which is unidirectional in communications, or used positivist approaches in quantifying CVD terms on Facebook pages and Twitter posts.

2.7 **Dissertation purpose and studies**

Within this dissertation, I sought to explore gendered media representations of CVD within specific contexts over four studies. First, a meta-synthesis of primary published qualitative journal articles was conducted to determine the content of media portrayals of women's CVD in Canada and the U.S., and the implications for women's identities and health promotion. The second study comprised an ethnographic content analysis of Facebook posts by the Heart and Stroke Foundation of Canada (a national health promotion agency) and public user consumption of these messages to investigate portrayals of women's CVD surrounding corporate rebranding. The third study entailed a critical discourse analysis of the discourses and subject positions constructed by the U.S. Women's Heart Alliance agency in raising women's awareness of their CVD risk and encouraging them to take action to lower their risk. The fourth study was a critical discourse analysis of identity formation within the meanings of Twitter consumption of "#MoreMoments" used to contextualize Canadian women's and men's engagement in CVD risk reduction and health promotion. Twitter data provided an opportunity to critically explore public-generated cultural and gendered expressions of CVD versus public consumption of health institutional messages examined in the second and third studies, thus adding a novel interpretive context to constructions of CVD on social media. The specific research questions for each of these studies are stated at the beginning of Chapter 5 (meta-synthesis study), Chapter 6 (Heart and Stroke Foundation of Canada study), Chapter 8 (Women's Heart Alliance study), and Chapter 8 (#MoreMoments study).

Chapter 3

Media Context

In this Chapter, the context of the social media platforms (i.e., Facebook and Twitter) will be outlined. This context will be followed by descriptions of cardiovascular health promotion organizations (i.e., Heart and Stroke Foundation of Canada [HSFC], Women's Heart Alliance [WHA]), and health campaign (i.e., More Moments) investigated across the three media studies.

3.1 Facebook

The mission of Facebook is to give the public the power to share their stories, and to make sharing more open and connected (Facebook, 2018a). Facebook has more than one billion users who use this platform to share their stories, see other users' view of the world, and connect with social networks and causes (Facebook, 2018a). A "Facebook page" refers to webpages by public figures, businesses, and organizations to engage with the public through Facebook in ways that are accessible to all Internet users by default (Facebook, 2018b). In comparison to other media platforms, Facebook permits users to post comments with longer texts and images and allows top posts to be accessible for longer periods of time (Frederick, Stocz, & Pegoraro, 2016). While 73% of U.S. adults are users of social networking sites, Facebook is the dominant social networking platform with 68% of adult internet users possessing personal Facebook accounts (Smith & Anderson, 2018). In comparison, 25% of adult users have accounts with LinkedIn, 29% have accounts with Pinterest, 24% have accounts with Twitter, and 34% have accounts with Instagram (Smith & Anderson, 2018). Facebook users demonstrate high levels of engagement with their accounts; particularly, 74% of Facebook users sign into their accounts once a day at minimum, and 51% sign in multiple times a day (Smith & Anderson, 2018). Eight-four percent of users with accounts with only one social networking site report that Facebook is

their site of choice (Duggan & Smith, 2014). In addition to the high and frequent usage of Facebook, women are predominant users of this form of social media (i.e., 74% women and 62% men), increasing the relevance of this data source in filling in the literature gaps (Smith & Anderson, 2018). Large percentages of users are within the age ranges at which women's risk for CVD begins to increase (i.e., 40–60 years of age) (U.S. Department of Health and Human Services, 2016).

In terms of Facebook users' age ranges, 78% of individuals between 30–49 years of age are Facebook users, 65% of individuals between 50–64 years of age are Facebook users, and 41% individuals aged 65 years and over are Facebook users (Smith & Anderson, 2018). Percentages of Facebook users are relatively similar across household incomes, as follows; 66% of users earn less than \$30,000/year, 74% earn between \$30,000–\$49,999/year, 70% earn between \$50,000–\$74,999/year, and 75% yearn over \$75,000 per year (Smith & Anderson, 2018). Facebook users vary in racial backgrounds with 67% identifying as White, 70% Black, and 73% Hispanic (Smith & Anderson, 2018). With regards to the literature gaps and research questions, these Facebook user demographic profiles afforded opportunities to determine how women's race, ethnic, and socio-economic backgrounds were constructed in ways that catered health messages to diverse women, yet with interests associated with inclination and resources to engage with health promotion organizations and campaigns.

3.2 **Twitter**

Organization values of Twitter comprise the belief in free expression with every voice having the ability to impact the world (Twitter, 2018a). Twitter users report choosing this platform for five broad reasons: to learn about trending topics and hashtags; to share photos, videos, GIFs, and memes; to learn about particular interests (e.g., news, entertainment, sports,

and politics); to share life updates with other users; and to provide feedback to others' updates through Re-Tweets, Likes, Shares, and Replies to others' Tweets (Twitter, 2018b). A "Tweet" is a message posted to Twitter which may contain text, up to 4 images, a video, and a GIF (Twitter, 2018c). Users are able to Tweet a maximum of 1,000 Tweets per day, including Re-Tweets (Twitter, 2018c). A "Re-Tweet" is a re-posted Tweet, as indicated by the Re-Tweet icon and the Twitter handle of the user who Re-Tweeted (Twitter, 2018c). Twitter users are able to lock their Tweets which are then protected from being Re-Tweeted by other users (Twitter, 2018c). A "Quote Tweet" allows Twitter users to write a Tweet in response to another person's Tweet and adding one's own content to the message (Twitter, 2018c). A "Twitter thread" refers to series of Tweets through which users may provide further context, updates, or extended points (Twitter, 2018c).

Under a quarter (24%) of U.S. adults who use the internet are active on Twitter (Greenwood et al., 2016). A larger percentage of Twitter users have college degrees (29%) than those with high school diplomas and less education (20%) (Greenwood et al., 2016). In terms of gender, 24% of Twitter users are men, and 25% are women (Greenwood et al., 2016). The largest percentage of users are within the age group of 18-29 years (36%), 23% are 30-49 years, 21% are 51-64 years of age, and 10% are 65+ years (Greenwood et al., 2016). With regards to employment income, 23% of Twitter users earn less than \$30,000/year, 18% earn \$30,000-\$49,999/year, 28% earn \$50,000-\$74,999, and 30% earn \$75,000+/year (Greenwood et al., 2016). A majority of Twitter users visit the site daily (42%), 24% visit the site weekly, and 33% visit the site less often (Greenwood et al., 2016). A vast majority of Twitter users (93%) are also Facebook users (Greenwood et al., 2016).

3.3 Heart and Stroke Foundation of Canada (Study two data context)

The overall impact goals of the HSFC are threefold: to prevent disease by giving children and youth the best start to a long and healthy life, and to empower adults to live healthy lives; to save lives by enabling faster and better cardiac and stroke emergency response and treatment; and to promote recovery by enhancing support for survivors, families, and caregivers (HSFC, 2018a). The HSFC Facebook page received 254,403 “likes” by Facebook users with 234,572 “followers” (Facebook, 2018c). The HSFC notes that the best cure of CVD is prevention, and the HSFC aims to promote healthy behaviours among Canadians by improving healthy eating and nutrition, creating more opportunities for physical activity, and reducing the rates of tobacco use and hypertension (HSFC, 2018a). The values of the HSFC include a passion for health, making a difference, learning every day, being extraordinary together, and embracing diversity (HSFC, 2018a).

The HSFC has two goals to achieve by 2020, as follows: to significantly improve the health of Canadians by decreasing their risk factors for heart disease and stroke by 10%, and to reduce Canadian’s rate of death from heart disease and stroke by 25% (HSFC, 2018a). In order to accomplish these goals by 2020, the HSFC invited Canadian families to learn about healthy behaviours through HSFC resources, live a healthy life, spread the message about the HSFC impact goals (disease prevention, saving lives, and promoting recovery), donate, volunteer, and lend their voice to campaigns for healthier laws and government policies (HSFC, 2018a). Aligned with the impact goals, future goals, and strategic goals, the tagline of the HSFC is “TMLife. We don’t want to miss it. Saving moments. Funding breakthroughs. Saving lives.” (HSFC, 2018a). Some significant health contributions of the HSFC include sponsorship of the first heart transplant surgery in Canada, provision of a free online toolkit to assess and manage risk used by more than 1.2 million Canadians, and the release of the first Canadian proposal for

an added sugar consumption threshold (HSFC, 2018a).

The current CEO of the HSFC is Yves Savoie with a 30-year career in Canadian charity organizations such as the Multiple Sclerosis Society of Canada (HSFC, 2018b). The Chair of the Board of Directors is Andrew W.W. Cockwell with ties to private equity firms, the Vice Chair is Dr. Andrew Price who is involved in clinical CVD prevention and rehabilitation research and sport medicine, and the Board of Directors is primarily made up of medical doctors, scientific researchers, and private equity executives (HSFC, 2018b). The HSFC is financially supported by partnerships across sectors. The largest investment was made by Canadian Pacific Railway which committed \$3 million to fund 13 Canadian cardiovascular research projects, and is labelled the HSFC's "national visionary partner" (HSFC, 2018b). Other partners include insurance companies (e.g., Desjardins Insurance), retail stores which specialize in pharmaceuticals (e.g., Shoppers Drugmart), pharmaceutical companies (e.g., Bayer), and clothing stores (e.g., Roots Canada Ltd.) (HSFC, 2018b). The HSFC invested more funds (\$42.4 million) into advocacy programs and health promotion initiatives than to CVD research (\$31.5 million) during the 2016 fiscal year (HSFC, 2017c). The HSFC collaborates closely with Canada's federal funding agency Canadian Institutes of Health Research (CIHR) for women's CVD knowledge exchange and translation activities, and research programs (Government of Canada, 2017a). Literature surrounding the portrayals of femininity and risk by the HSFC is limited to findings by Clark et al. (2016) who analyzed the HSFC website, newspapers, and a magazine involved with the campaign *The Heart Truth* to increase women's awareness of their risk. The findings of this study revealed that risk was limited to White, affluent, and caregiving mothers, and CVD was discussed as preventable through neo-liberal healthism acts by women at risk (Clark et al., 2016).

Data for this study was collected from the HSFC Facebook page between November 1, 2016 and March 31, 2017. The HSF launched a transformation of their website, logo, research funding priorities, and health promotion activities on November 15, 2016, to address demographic disparities in CVD targeting women and racial and ethnic minority groups (HSFBlog, 2016). This re-branding was the largest transformation of the HSFC in 60 years and was aimed at changing the face of Canadian heart disease and stroke in light of urgent health care challenges and to challenge the notion that CVD only affects White men (HSFBlog, 2016). The Hacking Women's Heart Health Hackathon was held on February, 9 and 10, 2017 to increase the uptake of research knowledge about women's cardiovascular health by clinical practitioners and researchers (Government of Canada, 2017a). This event was co-sponsored by the CIHR's Institute of Circulatory and Respiratory Health and Institute of Gender and Health and drew together individuals from various perspectives of expertise (e.g., trainee researchers, senior researchers, communications experts, and marketing and design experts) (Government of Canada, 2017a). The inaugural meeting of the Women's Heart Health Network was held on February, 8 and 9, 2017, with delegates' meals and registration fees paid by the HSFC (Government of Canada, 2017a). The time period of data collection also included International Women's Day (March 8, 2017) to recognize challenges faced by Canadian women as part of the overall theme of the significance of equality (Government of Canada, 2017b).

The second study comprised an ethnographic content analysis of the HSFC Facebook page, for which 25 Facebook posts, 15 links to websites, 32 images, 6 videos, 17 user comments, and 25 HSF and user replies to user comments were collected and analyzed.

3.4 **Women's Heart Alliance (Study three data context)**

The mission of the WHA is to prevent women's CVD diagnosis and fatalities by

focussing on the differences between men and women in CVD research, prevention, and health care (WHA, 2017a). In positioning their mission, the WHA (2017a) noted that women's hearts are smaller, women have different CVD risk factors and symptoms, women respond to therapies differently, and are at greater risk of dying in the year following a heart attack. The mission of the WHA comprised raising awareness of women's sex differences in health professionals and policy makers, empowering younger women and those of minority race backgrounds to take control of their cardiovascular health through lifestyle changes and health screens, and increasing survival rates of women who sustain heart attacks and strokes (WHA, 2017a).

The WHA Facebook page received 25,824 "likes" by Facebook users with 25,552 "followers" and constituted a discursive site of women's cardiovascular health messaging founded and led by industries positioned by current media understanding as gatekeepers to women's cardiovascular health promotion (Facebook, 2018d; WHA, 2017a). Particularly, the WHA was co-founded by recording artist Barbra Streisand with an established position of power in the entertainment industry as demonstrated by her accolades (winner of Oscar and Golden Globe awards among others), and Ronald Perelman, who is the Chairman and CEO of a diversified holding company titled MacAndrews & Forbes Incorporated (WHA, 2017a). Streisand and Perelman are philanthropic supporters of the following medical institutions; Barbra Streisand Women's Heart Centre at Cedars-Sinai Heart Institute in Los Angeles, CA, and the Ronald O. Perelman Heart Institute at New York-Presbyterian Hospital/Weill Cornell Medical Centre in New York, NY, respectively (WHA, 2017a). The national corporate partners of the WHA include medical device companies, technology businesses, and pharmaceutical companies Boston Scientific, Bristol-Meyers Squibb/Pfizer Alliance, Mars Symbioscience, and Pfizer (WHA, 2017b). WHA co-founders and medical leadership hold affiliations with organizations

across industries that ensured financial gain from WHA campaigns and events to promote women's cardiovascular health. For example, the campaign entitled "The Love Project", launched February 26, 2017, comprised a partnership between the WHA and cosmetics company Revlon, the latter of which is a part of Perelman's MacAndrews & Forbes Incorporated portfolio and of which Perelman is ultimately a shareholder (MacAndrews & Forbes Incorporated, 2017; U.S. Securities and Exchange Commission, 2017). WHA media staff and Streisand described women's cardiovascular health with their perceptions of the concept of love to facilitate Revlon branding goals of doubling product sales on Amazon, obtaining positive consumer perceptions of the brand by younger demographics, and achieving brand equity and cultural relevance (Revlon, 2017).

In addition to The Love Project, February 2017 was a symbolic month for uncovering power relations in discourse and language used to convey women's cardiovascular health promotion by the WHA in other ways. On February 2, 2017, current U.S. President Donald J. Trump issued a proclamation declaring February as American Heart Month in memory of those who sustained fatal CVD events, to raise awareness of the leading cause of death, and to encourage CVD prevention on the 14th National Wear Red Day on February 3, 2017 (American Heart Association [AHA], 2017a). National Wear Red Day is an annual campaign by the AHA and the National Heart, Lung and Blood Institute for which women are encouraged to wear red apparel that is positioned to serve as "a confidence booster and makes you feel powerful" in preventing CVD through monetary donations, health screens, and lifestyle changes (AHA, 2017b). The 14th annual Red Dress Awards covered by women's magazines Woman's Day and Redbook with lead sponsor CocoaVia (a cocoa extract food supplement) took place on February 7, 2017, to honor individuals who contributed to women's cardiovascular health (Hearst

Communications, 2017). The CocoaVia Healthy Heart Award winner at this event was Dr. Holly Andersen – Medical Advisor for the WHA and Director of Education and Outreach at the Ronald O. Perelman Heart Institute (Hearst Communications, 2017). Andersen was credited with educating women about their heart health, most notably through a Biblical-based program for African-American and Latina women at the latter institute (Hearst Communications, 2017). A WHA initiative entitled Cities and Community with Heart (CCHI) was launched on February 27, 2017, in Nashville, TN, to promote women’s cardiovascular health through a collaborative effort between entertainment, political, academic, and medical institutions (WHA, 2017b). The six member community steering committee included the WHA, the Office of Mayor Megan Barry, Metro Public Health Department Nashville, Meharry-Vanderbilt Alliance, NashvilleHealth, and Saint Thomas Ascension Health (WHA, 2017b).

In order to capture the discourses of women’s cardiovascular health and disease in the third study, and subject positions created within them, all data were collected (text, images, videos, and GIFs) from WHA Facebook posts and user comments for the month of February 2017. In total, 31 Facebook posts, 120 comments, 23 replies to comments, 22 links to external webpages, 82 images, 11 videos, 1 audio file, and 1 GIF were collected and analyzed.

3.5 **#MoreMoments (Study four data context)**

The use of the term “#MoreMoments” was initiated by the HSFC on November 16, 2016, at the launch of the HSFC re-branding transformation to drive public engagement with HSFC messages and fundraising (HSFC, 2018). Twitter data associated with this term was collected from September 1, 2017 to November 30, 2017, to capture meanings of what “more moments” meant to the HSFC and Twitter users leading up to the first anniversary of the re-branding. Particular gendered meanings surrounding the use of this term was noted when Canadian figure

skater, Joannie Rochette, began her term as Honorary Chair for the Heart and Stroke Canvass on October 6, 2017 (HSFC, 2018d). Rochette's mother passed away from a heart attack two days prior to Rochette winning the bronze medal at the Olympics (HSFC, 2018d). Within her new position as Honorary Chair, Rochette aimed to increase women's awareness of their leading cause of death (CVD), CVD prevention, and symptoms of acute cardiac events (HSFC, 2018d). Joining the Heart and Stroke Canvass was positioned as an electronic and door-to-door means to save lives and support families at the community level, while raising funds for the HSFC (HSFC, 2018d). Campaign goals included empowering community members (90,000 volunteers), connecting with community members (two million Canadians), raising funds for the HSFC (\$10 million), and supporting cardiovascular health (one life-saving goal) (HSFC, 2018d). Canvassers were provided with leave-behind pamphlets outlining symptoms of a heart attack and ways that community members can donate to the HSFC, bookmarks with similar information for community members who donate, a "tips for success guide" with CVD information, and contact information (HSFC, 2018d). Other symbolic events during the data collection time period were World Heart Day (September 29, 2017) and World Stroke Day (October 29, 2017) (World Heart Federation [WHF], 2018; World Stroke Organization [WSO], 2018). The goal of World Heart Day 2017 was to spread awareness of CVD as a health threat, and the steps with which CVD risk can be reduced by engaging in heart-healthy behaviours and receiving health screens (WHF, 2018). The focus of World Stroke Day 2017 was stroke prevention by raising awareness of stroke risks factors and performing preventive acts as individuals at risk, professionals, and decision makers (WSO, 2018).

In total, the following #MoreMoments Twitter data were collected and analyzed: 136 Tweets and Quote Tweets, 351 Re-Tweets, 227 images, 18 videos, 2 GIFs, 46 external links, and

36 replies to external link messages. This data was collected using Sysomos MAP, which is an analytic software with the capability to extract data from Twitter (Dennis, O'Loughlin, & Gillespie, 2015).

With the context and rationale for choosing Facebook and Twitter as media platforms, the HSFC and WHA as health promotion organizations, and the More Moments campaign, now outlined in the present Chapter, I will describe the Methodology and Methods in the next Chapter.

Chapter 4

Methodology and Methods

Within this chapter the methods used for data collection and methodologies for data analysis of each of the four studies will be outlined. All four studies will be broadly situated within the interpretivist research paradigm, relativist ontology, and social constructionist epistemology. Next, a discussion of researcher reflexivity which includes my own cultural identity, and academic and personal experiences to situate myself within the research through a personal narrative will be outlined. Steps involved in conducting the meta-synthesis (study one), ethnographic content analysis (study two), and critical discourse analysis (studies three and four) will then be outlined. The chapter is concluded with discussion of research ethics of social media data and how the present study adhered to these ethical standards.

4.1 Research paradigm, ontology, and epistemology

Qualitative research is underpinned by paradigmatic assumptions, which refers to philosophical frameworks about ontology (i.e., what constitutes reality) and epistemology (i.e., how reality is made known to us) (Bryman, 2004; Smith & Sparkes, 2014). These sets of ideas and beliefs influence what is studied, what constitutes data, how the researcher views and interacts with the data, and how the researcher arrives at particular interpretations from the raw data (Bryman, 2004; Smith & Sparkes, 2014). This dissertation was shaped and guided using an interpretivist paradigm and informed by a relativist ontology and social constructionist epistemology. Interpretivism is linked with the term “Verstehen” (or understanding), which was developed by Max Weber (1864-1920) and Wilhelm Dilthey (1833-1911) to contrast the human and social sciences from the focus on causality (“Erklären”, or explaining) in the natural sciences (Crotty, 1998). These two disciplines involve different kinds of realities and require different

methods of investigation (Crotty, 1998). Whereas a positivist approach in the natural sciences is used to obtain universal answers through value-free, detached observation with control and predictability, the interpretivist approach is used to investigate “culturally derived and historically situated interpretations of the social life-world” (Crotty, 1998, p. 67). The interpretivist paradigm refers to the study of the context of human actions and interactions with the individual with his/her meaningful conduct as the basic unit of analysis (Crotty, 1998). Conducting research within the paradigm of interpretivism constitutes explaining the subjective meaning and values of social actors and action (Crotty, 1998).

A relativist ontology refers to a multifaceted, internal view of social reality which is created by humans, shaped subjectively and fluidly, and exists through mental constructions (Smith & Sparkes, 2014). Whereas physical objects do exist independently of our constructions, our social realities are shaped by meanings we assign to objects and our interpretations of other peoples’ talk and actions, and are thus dependent on our minds (Sparkes & Smith, 2014). Elements of these mind-dependent constructions are shared among groups of individuals and across cultures, and their forms and contents are altered by those holding the constructions (Sparkes & Smith, 2014). Qualitative researchers working within the ontology of relativism conduct their data collection and analyses by exploring the ways in which people construct meanings of particular phenomena to acknowledge and report social realities (Sparkes & Smith, 2014). This process may consist of noting participants’ interpretations with extensive quotes, identifying themes of participants’ meanings, and contributing to scholarly literature by offering different perspectives on each theme (Sparkes & Smith, 2014). Relativist researchers describe the meanings and actions that a person might draw on within a particular context, versus making universal judgments about mandated meanings and actions across all contexts (Smith & Sparkes,

2009; Sparkes & Smith, 2014). In other words, relativist researchers operate on the understanding that our realities are tied to subjective interpretations determined by shared language and culture (including that of the researcher's) without seeking an external, universal, all-encompassing singular truth (Sparkes & Smith, 2014). In addition to situating findings within subjective cultures and norms, relativist researchers simultaneously position and describe their interpretations by noting how other researchers make interpretations of their inquiries at the moment (Sparkes & Smith, 2014).

The epistemological perspective of social constructionism refers to the assumptions that meaningful reality is constructed through social interaction with others and their worlds, that knowledge is co-developed and shared within social contexts, and that meanings are not discovered but depend on human practices with worldly objects (Crotty, 1998). Meanings are constructed with intentionality, purpose, and deliberation, and are actively developed with references and in relation to other meanings and interpretations (Crotty, 1998; Sparkes & Smith, 2014). Divergent interpretations of the same phenomena occur across different time periods and cross-culturally as different people make sense of the way things are through diverse ways of knowing, separate groups of meanings, and distinguishable realities (Crotty, 1998). We provide meaning for health and disease by social values assigned to some states of the human body through our interpretations of biological changes (Sparkes & Smith, 2014). For example, an ageing body may be constructed as a powerful mark of advancing status in some cultures and as a moral decline in other cultures (Sparkes & Smith, 2014). Thus, while the physical object or phenomena stays the same (i.e., the ageing body), our cultural meanings drawn upon in interpreting the ageing body defines our experiences, behaviours, and social realities when engaging with and interacting about the human body.

Social perspectives on the human body regarding aging and health are constructed, performed, and acted out during storytelling and narratives based on what people draw upon when creating their perspectives and presenting themselves within the social category of age as they relate institutional domains such as advertising and popular culture (Phoenix, Smith, & Sparkes, 2010). Within the social constructionist epistemology in viewing the human body, the meanings in talk and text do not simply reflect independent realities that individuals may possess, but instead constitute social practices that are performative in relation to agents in our cultural and social contexts (Phoenix & Sparkes, 2008). We make our sense of self visible and known by performing our shifting identities through culturally specific resources which rely on shared linguistic and comprehension conventions and enacted through joint actions within social relationships (Phoenix & Sparkes, 2008). When making sense of novel experiences, subjective concepts, models, and conceptual schemes are revised to (re)create our realities through social interactions, historical, cultural, and political norms (Altheide, 2009). Three arenas within which women's cardiovascular health and disease are socially constructed are the micro-level of the individual through individual action and interpersonal communication, the local meso-level of social agents and groups with which the individual interacts such as health care professionals, and the larger macro-level of regional and national practices within which the individual is situated such as health care policies and funding (Brown, 1995; Chaix, 2009).

Closely tied to the epistemology of social constructionism is the symbolic interactionist underpinning comprised of three basic assumptions; our actions towards objects occur based on the meanings we ascribe to these objects, these meanings are derived from and arise out of our social interaction with others, and we hold and modify these meanings while experiencing various phenomena in our realities (Crotty, 1998). Our social interactions require significantly

symbolic language, beliefs, and images, meanings of which are communicated by and to others to shape our awareness of perceptions, attitudes, and feelings assigned to phenomena by others which enable us to understand their intent (Crotty, 1998). Our identities, definitions of social situations and phenomena, actions, and behaviours are meaningfully (re)produced within these symbolic environments and contextualized by messages obtained and revised through social interactions (Altheide, 2000).

From a social constructionist perspective, social media platforms such as Facebook and Twitter have been positioned within this dissertation as cultural sites of meaning-making and worthy of examination to critically study health meanings and identities (Lupton, 2014). These platforms are promoted as facilitating identity constructions of engaged participants and (dis)empowered health consumers, and are thus particularly useful for studying health views and ideologies promoted in light of social justice concerns and the politics of digital health promotion (Lupton, 2014). Constructionist studies about traditional, uni-directional media messages surrounding disease risk reduction, treatment, and risk management have been known to marginalize specific demographics (lower socio-economic backgrounds, race and ethnic minority groups, women) who are at greatest CVD risk (Clarke et al., 2007; Gonsalves et al., 2014; Lupton, 2015). Lupton (2015) and Clarke (2010) called for critical health studies about how people generate and use digital data, make sense of these data, and construct concepts of selves, embodiment of health, and relations of power.

4.2 **Researcher reflexivity**

Reflexivity refers to the practice of explicitly and critically locating oneself as a researcher within broader historical, social, political, economic, and cultural contexts in order to make known the social categories from which data interpretations are qualitatively constructed

(McGannon & Johnson, 2009). In engaging in reflexivity, researchers are encouraged to examine how their identities and social positions guide them to interpret data, ask questions about how these interpretations arise, and how certain viewpoints are favoured over others (Bott, 2010; McGannon & Johnson, 2009; McGannon & Smith, 2015). A critical examination of my social categories as a narrative scholar and a social media researcher is required as narrative identities and meanings of who we are occur in relation to others, and we enact our sense of selves through storytelling (Georgakopoulou, 2017; Smith & Sparkes, 2009). In bringing awareness to our own values, morality, vulnerabilities and position, we may become more open to interpreting data from vantage points that are not our own and those that may have otherwise passed unnoticed or been completely silenced (Schinke, McGannon, Parham, & Lane, 2012).

The concept of conducting research about media portrayals of women's cardiovascular health campaigns took form through conversations with my primary advisor, Professor Kerry McGannon. Armed with a strong scientific, positivist approach to prior research experiences within the field of cardiac rehabilitation, understandings of socio-cultural constructions of women's health seemed relevant and intriguing to me. Many of the research participants with whom I quantitatively collected data appeared to ground their knowledge and day-to-day experiences of risk reduction lifestyles in cultural contexts (e.g., religious backgrounds, family roles). Eager to learn more about the epistemologies that guided Professor McGannon's research methodologies, my ability to grasp implications of socio-constructionist findings when discursively interpreted through power relations presented a challenge. Perhaps sensing my struggle early in my Master's degree, Professor McGannon asked me one day to imagine myself to be an alien dropped on Canadian soil to witness media stories about a well-known breast cancer awareness campaign which she was investigating at the time. In response to her question,

I replied “I do feel like an alien! I do not understand this Canadian culture of wearing pink clothing and accessories, buying pink kitchen appliances, and donating portions of one’s hard earned income to unknown yet omnipotent medical institutions. I do not understand how conforming to this social expectation is somehow associated with honoring memories of beloved family members.” This conversation opened up my thoughts to begin engaging in reflexive research about women’s CVD from the social positioning of a middle-class Canadian citizen raised in a former Portuguese colony in India, a female living in the hyphen as a caregiving mother and a career-oriented academic, and one at risk for CVD given my race and family history. Each of these parts of myself will be unpacked in this section with descriptions of how they intersected to influence the ways with which I viewed the datasets.

My childhood and adolescence comprised a privileged existence and my daily life was rich in arts (e.g., piano lessons), sports (e.g., swimming), and education (e.g., private schooling). I was introduced to extremes in socio-economic groups in a developing country where some people’s homes had tennis courts and swimming pools, while others lived without access to clean drinking water and food. Having come from a country with daily reminders of the extreme poverty, starvation, and homelessness experienced by certain groups of people, I was perplexed by the consumerist culture associated with Canadian health campaigns. The use of women’s diseases as a branding strategy to promote sales of merchandise feels almost derogatory to people living with health conditions and those who lost loved ones whose lives and memories might not be so entwined with keeping up appearances of youthful, trendy cheer – What about those who died because they were unable to afford treatment or the clothes and kitchen appliances to which their memories are linked? Going further, what about those whose palliative care was not a victorious finale to life? What about those whose lives were torn apart after their

diagnosis or the loss of a loved one? What about those who had no opportunity to say goodbye? What about those who died with guilt and regret about their life choices? Did these women's identities get wiped off with a magic eraser to "tidy" their image? Do these women's legacies not matter when stories of their health conditions and deaths are told?

As upper middle-class Indian-Canadians living with CVD risk factors, my family had (and continue to have) access to the medical care they need and the knowledge and financial means to engage in healthy lifestyle behaviours. I do not have any risk factors for CVD as determined by health screens covered by provincial and university health insurance programs. I engage in risk-reducing behaviours on a daily basis through regular physical activity, heart-healthy meals, not engaging in cigarette smoking, etc. In my experience with the medical system, I have seen pamphlets about S. Asians' risk for CVD in doctors' offices but my lifestyle behaviours have never been asked about/discussed with physicians, presumably because my health screens indicate that I am in good cardiovascular health.

For the majority of my Ph.D., I resided in urban areas with access to gyms with reasonable membership rates, safe neighbourhoods, and easy access to grocery stores and medical clinics/hospitals for medical care. My short-term residence in rural Northwestern Ontario for 7 months was met with a mixed local reception that impacted my lifestyle. Most local residents were welcoming and wanted to know more about my ethnic background and cultural practices, and shared their Northern Canadian traditions with me. Others limited their interactions to non-communicative stares and averted eye contact when I met their gaze. After a particularly uncomfortable walk home from the gym during which I was followed by a man driving a truck on a deserted highway with no other pedestrians or vehicles in sight, I chose to limit my workouts to weekends when the gym was more frequently visited by other members. I

also chose not to run outdoors for these safety concerns. As a result of this incident, my daily routine of running 5-7 miles/day was reduced to a sedentary lifestyle. In reading the media data, I was careful to interpret how lifestyle changes were promoted with regards to women's place of residence, and how women from marginalized groups might be further disadvantaged by messages.

During the course of my Ph.D., I self-identify as a heteronormative female in my late 20s-early 30s who strives to achieve balance between my role as a mother to my son and a researcher with academic and professional goals. I consistently worked part-time as a research assistant and graduate teaching assistant while pursuing my Ph.D., and receive immense support from my family. Given my close family ties and caregiving social role, it is apparent that parts of my identity fall within the broad demographic to whom media health promotion messages are catered. I answered my comprehensive exam when I was 4 weeks pregnant, and collected and analyzed data feeling my baby's kicks and turns in utero which eventually grew into infant feeds, tummy time games, and diaper changes. I experienced a shift in character and convictions that made me a protective and caregiving mother whose priorities revolve around my infant son's needs – further positioning me within the demographic to whom media health promotion messages were catered. However, a key component of my risk profile – risk associated with those of S. Asian and other minority backgrounds – were consistently overlooked by national campaigns and agencies in reaching out to women at greatest risk. There are plenty of ways in which the S. Asian cultural practices support a heart-healthy existence (e.g., diets rich in lentils and beans, physically vigorous dances at family gatherings) which were lost in favour of what may be perceived as health promotion through cultural assimilation. While data sets contained the odd image or video of what appeared to be a woman from a racial minority group, the risk

these women faced *because* of their race versus simply *in spite of* their race was never noted or discussed in media messages. This feeling of being a mere checkmark on a diversity checklist without genuine culturally-relevant health promotion to racial minority groups drew me to further reflect on how other demographics of women were excluded in the data – women from LGBTTQ and Two Spirited backgrounds, women without health insurance for basic health screens, women who resided in rural Canadian areas without road and phone access, etc.

Aligned with my Christian upbringing and my experiences with family members with physical and cognitive disabilities, I value unique contributions to healthy living as I believe that every individual has the capacity to engage in healthy lifestyle behaviours. Given our ancestral roots in a collectivist society, I enjoy spending time with these members of my family (and others), which often involves trail walks in the summer and mall walks in the winter, cooking together, and dancing our traditional dances to Konkani folk music. I also had the opportunity to work with individuals who sustained strokes in meeting their cardiac rehabilitation goals which included assisting people with weak lower body strength onto recumbent bikes or stabilizing wheelchairs during upper body training. Thus, my observation that individuals of different abilities were systematically excluded from images, videos, and text in the data, particularly meanings surrounding community-level fundraising events, made me feel uncomfortable and disappointed.

Although some of the foregoing pieces of myself are inseparable from my interpretations of media data to arise “from the margins”, I acknowledge my position of power in interpreting these campaign messages from the perspective of an academic able to discern implicit meanings and identify the broader ideologies these meanings support. I also write from a position of power in terms of my comprehension of the English language, my knowledge of scientific terms, and

my knowledge of relevant literature of women's health (re)presentations in the media.

Interpretations were consistently discussed with my primary advisor and thesis committee members, who mentored me in grounding my interpretations in particular bodies of literature. This collaboration allowed for my committee to serve as critical friends in reflexively guiding multiple perspectives during the research process (Smith & McGannon, 2017). By collecting and analyzing Facebook and Twitter data sets, I chose not to engage with users explicitly, but rather to make critical interpretations of ongoing conversations within these social media platforms to explore these forms of naturalistic data stories. As outlined across the three social media studies conducted, this approach was aligned with the underlying epistemology of social constructionism that informs the research undertaken. Thus my own identities, background and positionality cannot be erased, bracketed out, nor somehow be made "objective" in the process.

4.3 **Study one methodology: Meta-synthesis**

A meta-synthesis is the secondary analysis of findings of primary qualitative research to reveal new knowledge that goes beyond the sum of the constituent parts of each primary article (Paterson et al, 2001; Walsh & Downe, 2005). Meta-syntheses are different from narrative reviews, the latter of which refers to the critical evaluation of a topic without systematic search strategies, clear and accountable methods, or the capacity to go beyond primary research findings (Williams & Shaw, 2016). Meta-syntheses help to explore powerful, higher-order explanations of phenomena under review by providing researchers with tools to undertake rigorous methods to locate primary articles, critically appraise methodologies and methods, and synthesize primary findings (Whalley Hammell, 2007; Williams & Shaw, 2016). Current scholarship has noted numerous reasons for conducting meta-syntheses, as follows; to provide evidence in support of current health care policy and practice, to complement or contrast quantitative systematic review

findings, to identify contentious issues and literature gaps in research, to inform primary research questions, and to determine future areas of investigation (Williams & Shaw, 2016). Different types of meta-synthesis approaches have been distinguished into two camps, namely, integrative meta-syntheses and interpretive meta-syntheses (Barnett-Page & Thomas, 2009; Gough, Thomas, & Oliver, 2012; Williams & Shaw, 2016). Interpretive meta-syntheses are exploratory in nature, have multiple answers to research questions, provide new understandings of concepts, generate new theories, and result in complex and contextualized new knowledge (Gough et al., 2012; Williams & Shaw, 2016). Integrative meta-syntheses provide instrumental, descriptive knowledge to policy makers and practitioners by a priori tests, with little iteration or problematization of primary literature (Gough et al., 2012; Williams & Shaw, 2016).

The methods for conducting my meta-synthesis comprised of the following five stages: development of a research question, identification of relevant primary research, appraisal of quality of primary research, development of descriptive themes, and interpretation and conceptual synthesis to generate analytical themes (Gough et al., 2012; Thomas & Harden, 2008; Whalley Hammell, 2007; Williams, Ma, & Martin Ginis, 2017; Williams & Shaw, 2016; Williams, Smith, & Papatomas, 2014). In the first stage, I framed the meta-synthesis by determining the study purpose, research questions, and inclusionary criteria which guided the search strategy and identification of relevant articles (Williams, Ma, & Martin Ginis, 2017; Williams & Shaw, 2016; Williams et al., 2014). The objective of conducting the meta-synthesis was to gain an understanding into what is currently known about media messages, meanings, and implications of women's CVD. The reasons which justified this meta-synthesis were three-fold. First, this meta-synthesis explored the numerous ways in which traditional uni-directional media such as newspapers and user-generated media narratives such as social networking sites

supported each other, and contributed to broader cultural ideologies for women at CVD risk. Second, the meta-synthesis provided novel, higher-order understanding about the portrayals of women's CVD determined through qualitative investigations across different qualitative research methods such as content analysis and thematic analysis. Finally, the findings of this meta-synthesis provided readers with a meta-analytic understanding of media portrayals over a generous time period of 16 years, and thus demonstrates the pervasiveness of historical health paradigms and notions across wider social and political contexts. The purposes of the meta-synthesis were to synthesise qualitative findings regarding the (re)presentations of women's CVD in U.S. and Canadian mass media, explore the implications of media (re)presentations of women's identities and health promotion, determine how traditional media narratives were reinforced or resisted in user-generated media content narratives, and explore the ways in which these (re)presentations position women's CVD against/within the taken-for-granted notion of a "man's disease". The research questions that guided collection and analysis of primary articles were: What are the (re)presentations of women's CVD in traditional forms of media and user-generated digital media content?, and how do representations of women's CVD in media forms contribute to the construction of gendered identities and health promotion for women?

For the second stage of the meta-synthesis, primary qualitative peer-reviewed research articles were retrieved through electronic searches of six academic databases and hand searches of other articles published within the time frame of January 1, 2000 and September 30, 2016. The six databases comprised CINAHL, Communications and Mass Media Collection, Communication and Mass Media Complete, PsycINFO, PubMed, Web of Science, and hand searches involved locating other relevant articles from reference lists of articles retrieved from these databases. The terms used for database searches were:

(1) Terms for mass media: ‘mass media’ OR media OR ‘traditional media’ OR newspaper* OR news OR magazine* OR website* OR newsletter* OR ‘new media’ OR ‘social media’ OR Twitter OR Instagram OR Facebook OR ‘electronic media’;

(2) Terms for methodology: ‘qualitative research’ OR qualitative OR ethnograph* OR interpret* OR ‘grounded theory’ OR ‘content analysis’ OR ‘discourse analysis’ OR ‘thematic analysis’ OR ‘constant comparative’ OR ‘narrative analysis’ OR hermeneutic* OR ‘document analysis’ OR ‘media analysis’; and

(3) Terms for CVD: ‘heart disease’ OR ‘heart health’ OR ‘cardiovascular disease’ OR ‘cardiovascular health’ OR stroke OR ‘cerebrovascular’ OR ‘heart attack*’ OR ‘myocardial infarction’ OR ‘heart failure’ OR ‘peripheral vascular disease’

These database and hand searches resulted in 54 articles retrieved from CINAHL, 2 articles from Communications and Mass Media Collection, 18 articles from Communication and Mass Media Complete, 141 articles from PsycINFO, 244 articles from PubMed, 257 articles from Web of Science, and 32 articles from hand searches of reference lists. Removal of duplicates resulted in a total of 748 articles, of which 629 were rejected after reading their titles as these indicated that the studies were not relevant to the meta-synthesis research questions, as recommended by Williams and Shaw (2016). Next, 23 articles were rejected when their abstracts indicated that the studies were irrelevant to the research questions and/or they did not meet the inclusionary criteria of the meta-synthesis (Williams & Shaw, 2016; Williams et al., 2014). Inclusionary criteria for this meta-synthesis included qualitative, direct analyses of cardiovascular health or disease in Canadian and/or U.S. mass media portrayals as published in English, peer-reviewed, academic journals. Of the remaining articles that were read in full, 67 were rejected at full-text as they did not meet the inclusionary criteria, which left me with a total

of 29 articles at the end of Stage Two.

In appraising the methodological quality of the 29 relevant articles, recommendations were followed put forth by Dixon-Woods, Shaw, Agarwal, and Smith (2004) and Garside (2014) based on trustworthiness, theoretical consideration, and practical considerations. I began with assessing general aspects of the primary research articles such as whether the research questions were clear and suited to qualitative enquiry with clearly described contexts, sampling techniques, and data collection and analysis methods (Dixon-Woods et al., 2004). With regards to trustworthiness, considerations such as the appropriateness of the research design and execution to the research questions, presence of author reflexivity, support of findings with data illustrations, and diversity of perspectives in data interpretations were followed (Garside, 2014). Theoretical considerations included elements such as whether the findings were linked with appropriate existing theoretical frameworks, and whether the authors delved into potential explanations and implications of findings (Garside, 2014). I considered practical elements such as whether the studies contributed to the authors' research questions and whether the findings included evidence relevant to the data contexts and setting (Garside, 2014). In appraising the quality of primary research articles, I incorporated the understanding that the foregoing criteria are not prescriptive and exhaustive checklists, particularly in light of the variety of epistemologies, ontologies, and theories with which qualitative research is conducted (Sparkes & Smith, 2009). Word and page limits posed by academic journals may restrict the space available for authors to submit detailed accounts of theoretical frameworks (Williams et al., 2014), and unorthodox methodologies may yield robust results to support or complement overall findings (Weed, 2006). After a careful appraisal, it was determined that all 29 articles were conducted with varying, yet satisfactory levels of quality, and were all included in the meta-synthesis (See

Appendix A for the list of primary qualitative articles included).

Stage Four comprised the identification of themes across primary articles, which involved reading all 29 articles multiple times to familiarize myself with the findings, development of a data-coding grid to categorize findings, coding data line-by-line, and comparison and contrasting of coded data (Thomas & Harden, 2008; Walsh & Downe, 2005; Williams et al., 2014). Data extraction required a clear definition of what exactly “data” comprised in this meta-synthesis. Raw data such as media quotations from primary articles may not be fully published and therefore difficult to interpret without relevant context provided (Thomas & Harden, 2008; Williams & Shaw, 2016). On the other hand, all meaningful interpretations made by authors of primary articles and presented as results in the abstract, results, discussion, and conclusion sections are positioned as useful sources of data for meta-syntheses (Thomas & Harden, 2008). I chose to include both raw data from media sources and authors’ interpretations in data extraction as specific aspects of raw data in some studies were not considered by authors in arriving at their results, but supported results of other studies (Whaley Hammell, 2007). The coding grid included both lower-order categories such as CVD causes, risk factors, and pathology, as well as higher-order interpretations such as the versions of femininity for women at CVD risk. In instances where primary articles analyzed numerous health conditions in addition to CVD, and used data sources from numerous countries, only information pertinent to CVD from media sources in Canada and U.S. were categorized. Themes of information were then described and summarized by studying the differences and overlaps in codes, which aided the identification of novel, higher-order interpretations of the data with links to current literature (Thomas & Harden, 2008; Williams & Shaw, 2016).

The fifth and final stage was the third-order interpretation of themes that led to

overarching concepts which transcended the findings of each individual article (Walsh & Downe, 2009). I strove to answer the meta-synthesis research questions by identifying theory-driven themes in Stage Five from the data-driven descriptive themes in Stage Four (Williams & Shaw, 2016). In my synthesis, I explained tensions in contradictory constructions of women's CVD while preserving the meaning in the primary authors' articles, versus distilling overarching concepts down to obtain a homogenous fit (Walsh & Downe, 2005). This stage comprised a recursive process of linking the descriptive themes from Stage Four with current literature, and the research questions and purposes of the meta-synthesis.

Numerous steps were taken to achieve rigor in conducting the meta-synthesis of primary qualitative findings of media portrayals of women's CVD. Rigor was achieved by systematically searching the electronic databases, excluding articles at the level of the abstract versus title, and hand searching reference lists of included articles to retrieve further relevant articles (Williams & Shaw, 2016). I familiarized myself with the publication formats, media formats, and variety of epistemologies with which the primary media data were analyzed prior to development of the coding grid (Williams & Shaw, 2016). When analyzing the codes, I remained open to new themes and concepts through the use of an "other" category and reflexive journaling, and these novel findings were discussed with my primary advisor and dissertation committee members facilitating as critical friends (Smith & McGannon, 2018). All interpretations of data were grounded in current critical literature surrounding media portrayals of women's health and illness, and supported with compelling illustrations from the raw data (Smith & McGannon, 2018; Sparkes & Smith, 2009). The final stage of this study (i.e., the determination of critical, transcendental themes) was aligned with the interpretivist paradigm in exploring the context of social action in media data (Crotty, 1998).

4.4 **Study two methodology: Ethnographic content analysis**

Within the interpretive process of ethnographic content analysis (ECA), identity production and resulting implications for behaviour performance are tracked by identifying narratives of patterned themes and frames of information as (re)presented in the mass media (Altheide, 2000b). Although our perceived realities are frequently revised concepts, the social constructions of some agents (such as the editors of mass media publications) can become reified or institutionalized over time through the perpetuation of particular frames used to convey messages (Altheide, 2009). Central to ECA is the significance of constant emergence and constant comparison of meanings, settings, images, and nuances (Altheide & Schneider, 2013). Through this process of emergence and comparison, researchers may identify themes of information which become embedded in individuals' social lives through three key levels (Altheide, 1996). Our social lives occur as a result of historical, cultural, and organizational contexts as well as our interpretations about various social situations we encounter (Altheide, 1996). Internal and external factors influence our interpretations and communications with other social actors in order to constitute our life experiences in relation to these historical, cultural, and organizational exchanges (Altheide, 1996). Ultimately, consistent with the social constructionist epistemology that frames this dissertation, we develop our sense of personal identity, values and belief systems which evolve over time as we encounter new life situations (Altheide, 1996).

Data collection and analysis using ECA occurred through the following non-linear five stages; (a) identification of the problem and unit of analysis, (b) protocol data collection, (c) coding themes and frames, (d) data analysis, and (e) report writing (Altheide & Schneider, 2013). Twelve specific steps were conducted to accomplish these five stages (Altheide & Schneider, 2013). The first stage of ECA (i.e., identification of the problem and unit of analysis) entailed

three steps (Altheide & Schneider, 2013). These three steps included pursuit of a specific problem for investigation, familiarization with the process and context of the information source, and familiarization with several examples of data items to select a unit of analysis (Altheide & Schneider, 2013). For the second stage of the research process the protocol data collection sheet was drafted by listing several categories based on what is currently known within the literature, further expanded by collecting data from several documents, and then editing the protocol for further refinement by reviewing additional data items (Altheide & Schneider, 2013). This stage required consultations with my primary supervisor and advisory committee members as critical friends (Smith & McGannon, 2017) to ensure that all relevant codes were included. The second stage comprised coding of recurring themes and frames (parameters and boundaries of communicated messages), and choosing a sampling rationale and strategy (e.g., progressive theoretical sampling) (Altheide & Schneider, 2013). Finally, collected and coded data were analyzed and reported through conceptual refinement, development of brief summaries of categories or themes by illustrating typical and extreme cases, and integration of findings with interpretations and key concepts discussed in relation to the relevant literature (Altheide & Schneider, 2013).

The health promotion meanings in the HSFC Facebook posts and user interactivity with these messages were analyzed using ECA. Facebook was chosen for study two as it is the platform with the highest percentage of users (68%), highest frequency of daily use (74%), and highest percentage of users who identify as female and/or women within the age range at which CVD risk increases (74%) (Smith & Anderson, 2018). The HSFC was chosen as the health promotion organization for this study as it is the only national Canadian cardiovascular health promotion agency with far reach of Facebook messages with 254,403 “likes” by Facebook users

and 234,572 “followers” (Facebook, 2018c). In study two, numerous steps were taken to ensure this ECA was conducted with rigor. First, rigor was achieved by considering the intertextual significance of meanings as determined in line-by-line text coding in relation to meanings of images, videos, and GIFs (Millington & Wilson, 2016). Pluralistic interpretations and analytical steps were facilitated through critical discussions with my primary advisor and committee members, aligned with the recursive and reflexive nature of co-determining themes and sub-themes within the raw data (Smith & McGannon, 2018). The ECA methodological theories of media data as sites of meaning making, and talk and text as sites of social action, are aligned with the interpretivist research paradigm, relativist ontology, and constructionist epistemology, demonstrating methodological coherence (Altheide & Schneider, 2013; Smith & McGannon, 2018). Further, the findings were linked with current critical media literature about women’s health and illness, and presented with compelling illustrations, as recommended by Altheide and Schneider (2013) in enhancing rigor within the ECA methodology.

4.5 **Studies three and four methodology: Critical discourse analysis**

Although there is not one form of critical discourse analysis (CDA), it has been characterized as a form of textual analysis which explores the social, cultural, political and historical form, and organization of text and talk as indicators, artefacts, and enactments of social processes, relations and change (Fairclough, 1995; Lupton, 1992; McGannon, 2016). Texts are viewed as multi-functional social spaces for representation of our experiences and realities, and for social interaction by interlocutor participants tied to situational contexts such as specific topics (Cheek, 2004; Davies & Harré, 1990; Fairclough, 1995). A CDA methodology allows researchers to study about the use of language in creating and supporting dominant ideologies, or grouped/patterned ways of thinking, power relations, and theories of reality (Lupton, 1992;

McGannon, 2016).

The term “discourse” refers to the institutionalized use of language and linguistic systems (rhetorical strategies, narratives, images, metaphors, moral judgements, and concepts) at the cultural, political, and social levels (Davies & Harré, 1990). Discourses are non-static, multi-faceted, public processes of meaning making achieved dynamically and progressively through social sharing, versus personal possessions located in individuals’ minds (Davies & Harré, 1990). Although a variety of discourses are available in making sense of aspects of our reality at any given point in time, discourses are tied to power relations which can render certain discourses more powerful, credible, and available for meaning-making over others (Cheek, 2004; McGannon, 2016). Discourses offer distinct ways of understanding and expressing our identities and realities, and make certain categories available to construct our experiences of social identities (Davies & Harré, 1990). Lupton (1992) identified two main dimensions of critical discourse analysis; namely, textual and contextual. Textual dimensions refer to the structure of the micro-elements of discourses such as grammar and rhetorical devices, as well as macro-structures such as topics and themes of content matter in talk or text (Lupton, 1992). Contextual dimensions refer to the social, cultural, and political contexts within which the structure of discourses are produced and received, thus linking discourse structures with social situations and interactions to understand the reproduction of ideology and hegemony (Lupton, 1992). The “critical” aspect of critical discourse analysis refers to the process of going beyond analyzing content of text and talk by identifying power relations and ideologies in discourses, and implications on individuals’ identities, relations, knowledge, and beliefs (McGannon, 2016). Critical analyses of talk and text further refers to identifying the assumptions, taken-for-granted and unchallenged meanings and perspectives on which rest dominant ways of understanding and

knowing (Cheek, 2008).

Within discursive health psychology, social constructionist researchers explain perceptions about health and illness as inseparably tied with culturally available explanations and language, and text and language about health behaviours are positioned as social practices (Willig, 2000). An individual's health beliefs are grounded in various social contexts and discourses which provide different and contradictory meanings in making sense of health identities and experiences (Willig, 2000). In addition to understanding health beliefs, CDA may shed light on the ideologies in public health messages in the mass media, Government-sponsored health promotion, public conversations about health risk and conditions, and the relationships between doctors and patients (Lupton, 1992). CDA is a form of social resistance in uncovering subtle persuasion, control, and nuances of health meanings in dominant discourse ideologies which may not be evident to the general public who consume these health messages (Lupton, 1992). Although the public may take certain health meanings for granted, commonly held assumptions construct knowledge frameworks which permit specific ways of thinking about health and exclude others to construct a particular version of peoples' realities of health (Cheek, 2004). For example, the medical/scientific discourse of health privileges medical experts in powerfully and authoritatively legitimizing certain forms of knowledge while marginalizing other voices such as alternative, non-mainstream health practices (Cheek, 2004; Clark et al., 2016; McGannon et al., 2016). Through a CDA of the cultural construction of women's breast cancer in Canadian newspapers, McGannon et al. (2016) identified that health meanings were conveyed through discourses of biomedicine and healthism, with problematic effects for women's identities. Similarly, a CDA of *The Heart Truth* Canadian campaign revealed discourses of acceptable femininity and selfless prevention with limited resources for women of

minority backgrounds (race, ethnicity, gender expression, social roles) to make sense of their CVD risk (Clark et al., 2016). Both studies' authors interpreted media representations as positioning health maintenance as the responsibility of gatekeepers and women themselves, without concern for the social, historical, and political contexts within which women's disease risk exists and is perpetuated (Clark et al., 2016; McGannon et al., 2016).

A blended approach to CDA was employed from previous investigations of print and electronic media (re)presentations of femininity associated with women's CVD (Clark et al., 2016), breast cancer (McGannon et al., 2016), bariatric surgery (Glenn et al., 2013), and exercise participation (McGannon & Spence, 2012). These synthetic/eclectic CDA analytical steps as outlined by McGannon (2016) for sport, exercise and physical activity contexts were implemented to analyze the WHA Facebook data and the #MoreMoments Twitter data. This approach is influenced by the critical work of Parker (1992) and is aligned with social constructionism as it seeks to explore the role of power in discursive resources (i.e., broader cultural repertoires) and discursive practices (i.e., functions and effects of discursive meanings on identities and experiences) (McGannon, 2016).

Central to a synthetic approach to CDA is the concept of a 'subject position' or a particular set of voices, social roles and opportunities for social action/behaviour made available for identity construction that individuals may choose to take up in contextualizing their identities (Cheek, 2004; McGannon & Smith, 2015). Given the socially interactive and constitutive nature of discursive meaning-making, our identities and vantage points for interpreting experiences are not fixed results but are shifting and re-constituted based on discursive practices (Davies & Harré, 1990). Individuals may be labeled with certain identities and realities when viewed within one discourse, but may exercise agency in resisting these categories by positioning themselves

and other social agents within alternative and competing discourses (Davies & Harré, 1990). While individuals may construct their identities through subject positions in relation to dominant discourses, they may simultaneously challenge the implications of the dominant discourses to construct their identities in accordance with contradictory discourses (Willig, 2000).

Within one piece of text, a social actor may take up multiple and inconsistent subject positions held in place by several broader interpretive repertoires made available to the actor (Wetherell, 1998). Interpretive repertoires refer to the “doxic” nature of discourses comprised of common themes through which contexts of phenomena are commonly understood and made sense of, to support culturally familiar and popular premises and ideologies (Wetherell, 1998). For example, the repertoires in print media related to women’s CVD and risk include a repertoire around health maintenance and social class, an ethic of health-related self-care as legitimated by heteronormative gendered and caregiving roles, and scientific advancement as the cure to reducing CVD incidence (Clarke et al., 2007; Clarke & van Amerom, 2008; Gonsalves et al., 2015). Individuals take up subject positions within particular discourses which are afforded and limited by social interactions with agents in one’s immediate and extended social networks (e.g., institutions) who construct specific social roles and norms that the individual may be expected to enact (Wetherell, 1998). When individuals take up subject positions made available in and through discursive resources, they are conferred with particular narrative and behavioural roles and rights based on power relations, or individuals may resist these assigned ideals to align their identities with other subject positions in alternative discourses with different discursive resources (McGannon, McMahon, & Gonsalves, 2017; Parker, 1992; Wetherell, 1998). Opportunities for women’s subject positions within discursive resources surrounding CVD within print and electronic media have been restricted to exacerbating CVD risk when enacting “good mother”

ideals at the cost of personal health maintenance (Clark et al., 2016; Gonsalves et al., 2015). Examples of resistance to challenge discourses made dominant through institutional practices were shown in user-generated electronic media about women in sports, for which the meanings surrounding “good mother” ideals comprised the understanding that motherhood identities enhanced athletic performance, when motherhood and athletics were positioned as compatible (McGannon et al., 2017).

The following steps were applied in a non-linear back-and-forth manner to identify discourses and subject positions. First, data were read multiple times to familiarize myself with the discursive objects in the texts, images, videos, and GIFs, and the meanings of CVD risk and femininity that were constituted in the data (McGannon, 2016). This first, recursively re-visited step was achieved by recording specific words, concepts, phrases, and metaphors using the “track changes” tools in Microsoft Word to highlight data and follow-up with comments about findings within and across social media postings. These short notes in the form of descriptive, interpretive, and reflexive comments were then described in more detail in a new document with detailed explanations about how discursive objects were constructed and used by the organizations and public users to produce certain health related meanings of CVD and health-behaviour effects (McGannon, 2016).

Immersion in the task of note-taking and re-reading raw data led to an enhanced understanding of how images, videos, GIFs, rhetorical strategies, concepts, and plotlines indicative of broader ideologies were used to construct high-order meaningful categories in place (Clark et al., 2016; Glenn et al., 2013). When studying naturalistic forms of data such as user-generated and social media, images and videos provide additional layers of context to understanding meanings of discourses and subject positions (McGannon et al., 2017; McGannon

& Smith, 2015). In conducting the analytic steps of Studies Three and Four, the content of images and videos (physical positioning of social agents in space and in relation to each other, engagement with physical activity and medical equipment, engagement in gendered roles, etc.) were noted as they supported text meanings by providing clarity and nuance. Following recommendations by McGannon et al. (2016), text from the data items were analyzed first, after which the identified meanings from images, videos, and GIFs from each data item were examined for their content.

The identification of names, meanings, and implications of discourses was achieved by iteratively processing sections within data items and moving across data items to determine links with current literature (McGannon, 2016). The content and context of meaningful categories were linked across data items to identify overlaps, similarities and contradictions across and within categories (Clark et al., 2016; Glenn et al., 2013). In understanding the meanings of common topics, themes, narratives, and concepts in a discourse, each identified discourse was theoretically refined to succinct, yet descriptive, broader pictures or worldviews (McGannon, 2016). In articulating the names, meanings and implications for discourses, I strove to be critical of power relations and ideologies with which social agents and subjectivities were contextualized (McGannon, 2016). Frames of health promotion messages, patterned themes of meaning, and subject positions for individuals at CVD risk and responsible social agents were further articulated through a recursive stage that involved linking findings to literature about media (re)presentations of CVD, femininity, and health (Clark et al., 2016; Glenn et al., 2013). The last analytical step was important in interpreting the primary analysis findings to note how the identified discourses were influenced by broader health ideologies of power and the effects of these discourses on U.S. and Canadians' health beliefs, knowledge and identities, with

implications on risk reducing behaviour engagement (Clark et al., 2016; Glenn et al., 2013). The identification of subject positions was aided by examining the types of actors implied, roles of each actor, and the rights and implications of speaking conferred to actors in discourses (McGannon, 2016). Descriptions of available subject positions were tied to social, ideological, psychological, political, and behavioural implications, and potential opportunities for resistance and change (McGannon & Smith, 2015).

Cardiovascular health promotion meanings in WHA Facebook data and #MoreMoments Twitter data were analyzed using this synthetic, eclectic CDA methodology. The WHA was chosen for study three as it is the national U.S. women's cardiovascular health promotion agency with the largest following on Facebook with 25,552 "followers" (WHA, 2017a). The #MoreMoments campaign was analyzed in study four as the campaign was tied with the launch of the HSFC re-branding to promote the health of Canadian minority groups at greatest CVD risk (HSFBlog, 2016). Twitter was chosen for study four as it is the multi-format platform with the second highest usage after Facebook (24%), with 26% of users visiting the platform several times a day, and a significant proportion of female users (24%) (Smith & Anderson, 2018).

In conducting studies three and four, the following steps were taken to ensure rigor. The interpretivist paradigm and constructionist epistemology were chosen to answer the research questions as they are aligned with the theoretical assumptions that drove literature gap identification (i.e., talk and text as sites of social action, meaning-making as an interactive process versus mind-dependent) (Smith & McGannon, 2018). Within this ontological framework, Sparkes and Smith (2009) advocated that researchers working within the relativist approach explicitly discuss the characterizing traits of the chosen methodology. These traits refer to the way researchers conduct that particular kind of inquiry within the context of the raw data,

objectives and research questions, and function to aid reader appraisal of the quality of research conducted (Smith & McGannon, 2018; Sparkes & Smith, 2009). The CDA studies were conducted reflexively, recursively and ethically with regular critical discussions with my primary advisor who helped ground the findings in particular pieces of literature and enhanced pluralistic data interpretations, as a critical friend (Smith & McGannon, 2018). Methodological coherence was achieved by appropriately choosing non-intrusive naturalistic data, supporting higher-order analytical interpretations with data excerpts, and identifying discourses and subject positions in relation to current critical knowledge tied to women's health campaigns (Smith & McGannon, 2018).

4.6 Research ethics of social media data

Data collection for this dissertation constituted a form of non-intrusive web-based research as social media users were not engaged with, nor was the researcher a member/user of these specific social media platforms, as outlined by Warrell and Jacobsen (2014). Although collected data was interpreted with current literature to contextualize meanings and interpretations, the data were created by other social media users on a public space (Warrell & Jacobsen, 2014). Researchers analyzing potentially private data on public spaces are encouraged to consider the ethics of what is done with datasets in addition to the kind of data obtained and how this data are obtained (Metcalf & Crawford, 2016). The rapid expansion of digital mass communications available for conducting research has surpassed research ethics developments without established ethics frameworks currently in place for social media research (Williams, Burnap, & Sloan, 2017). However, best practice recommendations for social media research ethics have been put forth along five broad categories: privacy, confidentiality and anonymity, informed consent, harm and risk to participants and researchers, and social media site terms

(Metcalf & Crawford, 2016; Townsend & Wallace, 2016; Warrell & Jacobsen, 2014; Williams, Burnap, Sloan, Jessop, & Lepps, 2017). Although certain characteristics of each category intersect with each other (e.g., conditions for anonymity intersect with those of informed consent), each category is outlined separately to clarify the ethical parameters.

Privacy. A number of factors have been noted to influence privacy of participants' messages on social media including whether the data are expected to be read publicly, the data are posted on open or closed platforms, the data are password protected, users' security settings permit messages to be viewed publicly, the data are posted by public figures, the messages are guarded by gatekeepers or administrators, and the data contains sensitive information such as criminal activity or controversial political opinions (Townsend & Wallace, 2016). Privacy implications of social media data and determination of when a violation of privacy has occurred may be assessed by contextual integrity, and norms about the appropriateness of data collection and flow of information (Norval & Henderson, 2017). "Norms of appropriateness" refer to the type and nature of information about people that are allowable, expected, or fitted to be disclosed in a particular context (Nissenbaum, 2004; Norval & Henderson, 2017). Privacy of social media users can be ensured by de-identifying data by removing user names and any other identifying information from datasets, not attempting to re-identify users or follow-up with users, not grouping posts made by the same user during analysis, and reviewing the platform's privacy policies and user agreements to determine whether data collection is within scope of permission for use (Taylor & Pagliari, 2017).

Confidentiality and anonymity. Anonymity may be achieved by removing Facebook usernames and Twitter handles during dissemination of findings, and making minor amendments to user posts by correcting errors in spelling, deleting words, or substituting words to hide users'

identities and reduce potential risk from harm (Webb et al., 2017). However, while maintaining confidentiality and anonymity in reporting social media data findings, qualitative researchers face a challenge in adequately providing the opportunity for reviewers and readers to independently evaluate the authors' interpretations and analyses (Webb et al., 2017). Conducting qualitative research with academic integrity demonstrated by clear indications that social media data were not fabricated and falsified requires for the illustration of findings with compelling quotations in their original format (Webb et al., 2017). Complicating issues of confidentiality and anonymity, researchers are encouraged to prevent further silencing of marginalized voices such as victims of abuse by reporting paraphrased data or shying away from sensitive topics such as this (Webb et al., 2017).

Informed consent. Contextual consent to health research participation on social media may comprise the types of data made available (sensitivity levels of topics discussed) and the stakeholders with whom the data are shared (Norval & Henderon, 2017). Kosinski, Matz, Gosling, Popov, and Stillwell (2015) noted that social media users' consent is not required when four conditions are met. These conditions include the study of data that are intentionally made public by users, data that are made anonymous after collection with no attempts to trace back data to users during analysis or publication of findings, when researchers do not interact with the users, and when researchers do not publish information that may lead to identification of users from whom data is collected (Kosinski et al., 2015). Willis (2017) noted that informed consent for social media research participation is not required when the data are treated as textual, for document analysis research versus human subjects research, and when data are conceptualized as observing human crowd behaviour in public naturalistic spaces. These scholars' recommendations echoed Twitter user attitudes about population-level health monitoring who

noted that their consent to social media studies was implied in posting open-access online data (Mikal, Hurst, & Conway, 2016). Additionally, participants in this study favoured the use of Twitter data at the aggregate level without publication of information that may target particular individuals (Mikal et al., 2016).

Harm and risk to participants and researchers. In considering risk of harm to researchers, Golder, Ahmed, Norman, and Booth (2017) recommended that researchers maintain boundaries between the research and personal personas on social media platforms to limit potential for becoming victims of abuse or trolling. Risk to participants included data being interpreted out of intended context, inappropriate use of data, and use of data in ways that made the social media users identifiable (Golder et al., 2017). Solutions to one form of potential risk increased potential participant risk in other ways (Golder et al., 2017). For example, the context within which data were generated may be maintained by the illustration of researcher interpretations with direct quotations, which in turn may compromise anonymity and privacy of participants (Golder et al., 2017). Particular attention must be paid to reducing potential harm and risk when analyzing data generated by vulnerable groups such as children, teenagers, individuals with mental health conditions, users who are deceased at the time of data collection, and individuals of sexual minority groups in countries where their orientations are illegal (Golder et al., 2017). In order to minimize risk of harm to participants, researchers may paraphrase all published data from members of vulnerable groups, and provide readers/audiences with detailed instructions on the search strategies used to obtain the data (Townsend & Wallace, 2016).

Webb et al. (2017) proposed a risk assessment matrix with two axes to determine the level of risk for Twitter users and Tweet content. These two axes were labeled high risk user-low risk user and high risk content-low risk content (Webb et al., 2017). “High risk users” were

defined as those whose identities were potentially identifiable from Twitter profile settings with content ranging from high risk (provocative, antagonistic messages) to low risk (mundane messages) (Webb et al., 2017). “Low risk users” were defined as those whose identities are not identifiable from profile settings or were from public, official, or bot accounts (Webb et al., 2017). Low risk users may also post high risk content and/or low risk content (Webb et al., 2017). While this matrix served as a starting point for developing understanding about potential risk for harm, this matrix may have problematic implications that must be considered before implementation (e.g., users may change their profile settings after researchers include their quotations in reports, making previously un-traceable users now easily identifiable with their profile details and posting history) (Webb et al., 2017).

Social media site terms. According to Facebook sharing policies, all registered users were made aware of the nuances of their public posts which included their permission for anyone (including individuals without Facebook accounts), to access and use their shared content, and associate their content with their identity (Facebook, 2018). Users are permitted to share content from other users that are made public, such as re-sharing of text and images, mentions of Facebook usernames in posts, and tagging other people’s locations in posts (Facebook, 2018).

According to Twitter terms of use, all registered users’ Tweets are made public by default which are broadly and instantly disseminated to other users and organizations including universities, public health organizations, and market research firms (Twitter, 2018). These organizations may use these Tweets to study trends and develop insights into how content is constructed (e.g., topics of users’ interest) (Twitter, 2018). Twitter users may change their settings to make their Tweets more private, but certain profile components such as names and usernames cannot be made private (Twitter, 2018). Although users may deactivate their accounts

and delete Tweets, Twitter informed users that search engines and third parties may retain copies of information that users made public like profile information and Tweets (Twitter, 2018).

Ethical use of Facebook and Twitter data in three studies. Taking stock of helpful recommendations put forth by researchers who contributed to current guidelines for social media research, I aimed to ensure that collected data were analyzed appropriately. In this dissertation, I employed a social constructionist epistemology in conducting ECA and CDA, both of which include the assumption that texts and language are forms of behaviour enactment. Within this approach, social media data call for critical document analysis versus human subjects' research, the former of which did not require a research ethics application.

Data collection from Facebook and Twitter in studies two, three and four comprised posts by organizations, public figures, and other users seeking to promote cardiovascular health on pages that were not password protected and did not have administrative gatekeepers. When posts contained embedded links to private pages of support groups that required me to join the group in order to view posts, I did not join, view or collect such data as these posts were explicitly contextualized as private forums of information sharing. Given that the intent behind collected messages were public education and engagement, data from these organizations' pages were made public, and thus posed limited implications for potential privacy concerns. Additionally, I did not manipulate users' newsfeeds or interact with users, and as such, all three studies can be considered projects that were low-risk to participants (Azer, 2017). In the presentation of results/discussion sections of the studies, identifying information about Facebook and Twitter users who engaged in discussions with each other in response to organization posts was removed (e.g., removing user names from publications, not collecting data about users' sex and gender). All study findings were also grounded in data from both organizations and user posts, and when

seeking illustrations I limited these to quotations from organizations and public figures as much as possible, as recommended by Townsend and Wallace (2016). When providing quotations from public users, I sought out examples of user posts with minimal identifying data, and in instances where this information was present, I deleted it from publications (e.g., I stated “[name withheld]” and “[location withheld]” where user names and locations were present in quotations). Aligned with current scholarship about Facebook and Twitter as platforms for users to voice their beliefs as a form of activism (Williams, Burnap, & Sloan, 2017), I provided such illustrations in publications. For example, some users in my studies posted conversations about being marginalized in the type of health care they received when perceived to be a system catered to men. In these instances, voicing their experiences may be considered an emancipatory form of advocacy for better care for women. In other instances, users may have stated sensitive information that have been noted to require informed consent (Golder et al., 2017). For example, posts that linked users’ political party of preference in the 2016 U.S. elections with women’s CVD were excluded from publications. I did not encounter ethical dilemmas that warranted reports to legal authorities as organizations and users did not post content that was discriminatory, threatening, or held potential risk to harm themselves or others. Data pieces that were derogatory towards individuals who survived and sustained fatal acute cardiac events were not analyzed as I interpreted these posts as being intentionally disrespectful. Examples of these posts included users expressing joy about CVD deaths of family members, and those wishing ill on loved ones attempting to reduce their CVD risk.

In summary, this Chapter contained descriptions of the research paradigm, ontology and epistemology within which this dissertation was grounded, followed by researcher reflexivity, research methods, and research ethics. In the following Chapter, I provide the research questions,

results and discussion of the meta-synthesis of qualitative research findings of media portrayals of women's CVD.

Chapter 5

Study one: A meta-synthesis of qualitative research about Canadian and U.S. media portrayals of cardiovascular disease

In this Chapter, the research questions that guided the meta-synthesis are presented. Next, descriptive results of the meta-synthesis are outlined (Stage Four; three themes), followed by critical, transcendental interpretations of the primary data (Stage Five; two themes) (see Appendix A).

5.1 Research questions

A meta-synthesis of primary published qualitative journal articles was conducted to determine the content of media (re)presentations of women's CVD in the U.S. and Canada and the implications of these portrayals for women's identities and health promotion. The two research questions that guided this meta-synthesis were: (1) What are the representations of women's CVD in traditional forms of media and user-generated digital media content?, and (2) How do representations of women's CVD in media forms contribute to the construction of gendered identities and health promotion for women?

5.2 Results

Three descriptive themes were identified in coded data of Stage Four: the construction of women at CVD risk, the portrayal of risk reducing strategies and acute cardiac events, and the delegation of responsibility for maintaining women's cardiovascular health (Gonsalves, McGannon, Schinke & Pegoraro, 2017).

5.2.1 The construction of women at CVD risk

Within this theme, the concept of who is at risk for CVD was developed around physiological risk factor and lifestyle traits, women's demographic characteristics and social

roles, women's race and ethnicity, and women's relationships and positioning in social networks (i.e., employment, spousal relationships, parental relationships, sibling relationships, and other relationships with community members). With regards to physiological risk factors and lifestyle characteristics, hypertension, hypercholesterolemia, diabetes mellitus type 2, family history, physical inactivity, unhealthy diets, overweight, obesity, and cigarette smoking were noted (Bell, Wilkes, & Kravitz, 2000; Clarke & Binns, 2006; Clarke & van Amerom, 2008; Clarke et al., 2007; Edy, 2010; Gonsalves et al., 2015; Hoffman-Goetz, Shannon, & Clarke, 2003; Miller & Kollauf, 2002; Moyer, Vishnu, & Sonnad, 2001; Moynihan et al., 2000; Park & Reber, 2010; Roy, 2008; Thompson, Robinson, Cusella, & Shellabarger, 2000; Turner, Vader, & Walters; 2008; Wharf Higgins, Naylor, Berry, O'Connor, & McLean, 2006; Woloshin, Schwartz, Tremmel, & Welch, 2001; Ye & Ward, 2010). Different variations of risk factor profiles were drawn upon to construct women's CVD in data sources depending on audience interests and year of publication (Edy, 2010; Turner et al., 2008). *Shape* (a women's magazine about fitness, healthy eating, and weight loss) provided readers with more information about nutrition (61%) than women's fashion and beauty magazine *Vogue* (3%) between January and June 2005 (Meredith Corporation, 2008; Turner et al., 2008; *Vogue*, 2018). Risk factor reports changed over time within the same data source (i.e., *Good Housekeeping*, a women's magazine about home ideas, food, and beauty) when overweight, obesity, and diabetes mellitus were included as risk factors in 1999-2001 issues, and excluded in 1993-1998 issues (Edy, 2010; Hearst Communications, 2018).

Portrayals of risk factors comprised those experienced as a culmination of unhealthy lifestyle choices such as physical inactivity, those which are inherited through family history such as diabetes, and those which were only diagnosable with medical health screens and thus

perceived as silent and insidious such as hypercholesterolemia and hypertension (Clarke & Binns, 2006; Clarke & van Amerom, 2008; Clarke et al., 2007; Edy, 2010; Gonsalves et al., 2015; Hoffman-Goetz et al., 2003; Miller & Kollauf, 2002; Moyer et al., 2001; Moynihan et al., 2000; Park & Reber, 2010; Roy, 2008; Thompson et al., 2000; Turner et al.; 2008; Wharf Higgins et al., 2006; Woloshin et al., 2001; Ye & Ward, 2010). In constructing women's risk factors, media sources portrayed women's bodies through reductionism to promote a simplistic, tidied understanding of the female cardiovascular system by focusing on individual components (e.g., blocked arteries as culprits) and analogies (e.g., HDL as "the good", LDL as "the bad", and heart disease as "the ugly") (Clarke & van Amerom, 2008; Clarke et al., 2007).

Risk for women's CVD was implicitly tied to demographic characteristics of high socio-economic backgrounds and heteronormative social roles for women. Authors of primary articles noted the lack of consideration and inattention to the socio-economic determinants of women's cardiovascular health by excluding identities of those from poverty and low-income backgrounds, and those who are unemployed (Clarke & Binns, 2006; Clarke & van Amerom, 2008; Clark et al., 2016; Gonsalves et al., 2015). Media sources promoted innovative and novel risk-identifying technological advances that are not readily available to all North Americans given long waiting periods and limited health insurance coverage (Clarke & Binns, 2006). In providing readers with a "face" for all women at CVD risk, female entertainment industry celebrities were drawn upon to provide personalized messages while dressed in designer attire, conveying a culture of affluence, high social status and power, and prestige (Compton, 2006; Gonsalves et al., 2015). Women were portrayed as ignorant about their own CVD risk and expressing disbelief when diagnosed, and more concerned about their own risk for breast cancer and their husbands' risk for CVD, to promote a heteronormative version of femininity (Clark et

al., 2016; Clarke et al., 2007; Edy, 2010; Gonsalves et al., 2015).

It appears that a shift in emotional traits for women at risk may have occurred over time, as women at risk were previously positioned as ashamed, emotional and fearful when diagnosed with CVD in Clarke et al. (2007). Clark et al. (2016) revealed that women at CVD risk were portrayed as possessing a constant positive attitude without opportunity for the expression of complex and negative dispositions in campaign media. Linking women's identities with their heteronormative roles was further supported by media sources which portrayed inescapable CVD risk associated with oral contraceptives in women of child-bearing ages and menopause experienced by middle-aged women (Clarke et al., 2007; Clarke & Binns, 2006; Edy, 2010; Miller & Kollauf, 2002). In the following quotation, Gonsalves et al. (2016) highlighted the inspirational story of the typical woman portrayed at CVD risk in women's magazine *Glamour*, which involved a sexualized image of an affluent middle-aged entertainment celebrity:

In this regard, the cover contained a page-length provocative image of 38-year-old Canadian country music singer Shania Twain wearing a red Alberta Ferretti outfit that focused on her shoulders, chest, and lower torso. The sexualized portrayal was achieved through the revealing nature of the outfit, strategic placement of the tassel of her blouse and surrounding text, and Twain's pose and stance. This modified version of the Red Dress and Twain's involvement with this campaign was further associated with a consumerist culture by promoting Twain's song entitled "Ka-Ching!" (the sound of a cash register opening) from her latest album "Up!" as a title for an article regarding clothing (Leive 2003b, p. cover). Two titles on the cover shared the focus with Twain's image by virtue of their stronger colour contrasts, larger font, and strategic placement on the magazine cover, entailed

“Men talk, talk, talk: 25 bedroom dos and don’ts according to guys” and “Save your health and your life. The ultimate guide to losing weight, protecting your body—and beating the disease that kills 1,400 women a day” (Leive 2003b, p. cover).

The identities for women at risk was also constructed based on race and ethnicity. Miller and Kollauf (2002) and Edy (2010) reported that their U.S. news, magazine, and AHA sources noted disparities experienced by Black, Hispanic, and Asian women. Hoffman-Goetz et al. (2003) and Mastin et al. (2002) noted that CVD was portrayed as a White woman’s disease when data sources that catered to Black and Indigenous women focused on other health conditions despite the latter demographics being disproportionately affected by CVD. In other media sources such as direct-to-consumer-advertisements in magazines that catered to ethnically diverse demographics such as African Americans, Hispanic Americans, and Asian Americans, all advertisements for CVD contained White models (Welch Cline et al., 2004). Although *The Heart Truth* campaigns in Canada and the U.S. included models of diverse racial and ethnic backgrounds, the majority of images and text comprised White women, thus problematically positioning this demographic as at greatest CVD risk (Clark et al., 2016; Gonsalves et al., 2015). In essence, U.S. and Canadian media that catered to mainstream demographics and interests, as well as minority racial and ethnic populations, systematically constructed an inaccurate image of White women as being at greatest risk for CVD (Clark et al., 2016; Gonsalves et al., 2015; Hoffman-Goetz et al., 2003; Mastin et al., 2002; Miller & Kollauf, 2002; Welch Cline et al., 2004). The following quotation from Clark et al. (2016, p. 7) demonstrates the absence of racial and ethnic minority groups in *The Heart Truth* messages and the implications of this absence on health promotion:

... the absence of ethnic and cultural diversity within the campaign contributes to a

narrow representation of who is at risk of heart disease and also produces a problematic “truth” about which women “matter” when it comes to prevention and promotion efforts, and which women survive.

Authors of the primary articles also noted that women at CVD risk were constructed in terms of their roles in relationships as employees, wives to men, mothers, sisters, daughters, and female members of other social groups such as religious groups (Clark et al., 2016; Clarke & Binns, 2006; Clarke & van Amerom, 2008; Clarke et al., 2007; Compton, 2006; Gonsalves et al., 2015; Fotiadou et al., 2014; Hoffman-Goetz et al., 2003; Miller & Kollauf, 2002; Moynihan et al., 2000; Roy, 2008; Sarrazin et al., 2014; Sumpradit et al., 2004). These varied roles were reported to have specific and gendered implications on women’s risk and health identities. Female employees were noted to experience increased CVD risk due to work-related stress which jeopardized their career prospects, which was contrasted against the portrayal of men’s CVD risk which was a status symbol of their high social standing (Clarke et al., 2007; Edy, 2010). In more recent articles, wives were encouraged to identify their own personal risk for CVD versus simply concerning themselves with their husbands’ risk, and CVD risk experienced by mothers was tied to negative consequences on their caregiving responsibilities (Clark et al., 2016; Gonsalves et al., 2015). Whereas women’s roles as wives was problematized as taking attention away from their own risk, their roles as mothers were described as their life’s ultimate calling and the very reason for which they must identify their risk early (i.e., to ensure they may continue providing the best care for their children) (Clarke et al., 2016). This recent prioritization of women’s health over the promotion of women’s identities as simply concerned with their husband’s health demonstrates a shift in broader gendered ideologies and scientific understanding of women’s risk. For example, in the following illustration, the American Heart

Association of Wisconsin materials disseminated in the 1980s minimized women's risk in light of maintaining their "good wife" ideals:

Did you know your husband may be gambling with his most valued possession? His life. Warns wife that husband should have blood pressure checked. High blood pressure can lead to heart attack and stroke. ... AHAW Education Publication Catalog includes the following: Ways to a Man's Heart—a fat-controlled, low-cholesterol meal plan (Miller & Kollauf, 2002, p. 256)

In user-generated media data, women's mother identities were further positioned as antagonistic to optimal emotional recovery post-stroke as a result of negative experiences with their children, as illustrated below:

[Name withheld] described her son's sadness that she had had a stroke. When looking through old family photos, her 17-year-old son remarked: "I wish you didn't have a stroke. [...] You were more fun then." (Fotiadou et al., 2014; p. 1293)

This relationship between motherhood and CVD risk and recovery as noted by researchers who studied user-generated media provides insight into some of the complexities experienced when negotiating one's sense of self within the social realm. Women may find themselves faced with further distress when personal relationships with children do not align with the "selfless mother" ideals circulated by health institutions such as the Heart and Stroke Foundation of Canada (Clark et al., 2016; Roy, 2008). Whereas women's social identities as mothers were positioned simultaneously as barriers and facilitators to maintaining health, users were not provided with ways through which their health and caregiving roles could occur together (Gonsalves et al., 2016). Rather, women's dual identities were positioned as non-negotiable, further promoting lifestyle changes as futile attempts at risk prevention in favor our

medical “fixes” (Clarke et al., 2007). Women’s mother identities were different from their “superwoman” identities as career goals and good wife ideals shared the focus with maternal caregiving in the latter construction of what it meant to be a superwoman.

5.2.2 **The portrayal of risk reducing strategies and acute cardiac events**

Authors of the primary articles noted risk reducing and risk managing strategies for women in their media sources, which fell under the following two broad sub-themes; strategies within the medical frame, and lifestyle/behavioural modification guidelines. Strategies within the medical frame favoured disease treatment versus prevention, the latest technological advances in scientific research, and the glorification of medical, pharmaceutical, and research professionals in paternalistically protecting women’s bodies from CVD (Clarke & Binns, 2006; Clarke & van Amerom, 2008; Compton, 2006; Edy, 2010; Gonsalves et al., 2015; Hoffman-Goetz et al., 2003; Miller & Kollauf, 2002; Moyer et al., 2001; Moynihan et al., 2000; Pribble et al., 2006; Sarrazin et al., 2014; Sokol et al., 2010; Sumpradit et al., 2004; Thompson et al., 2000; Woloshin et al., 2001; Ye & Ward, 2010). Implications of such positioning of CVD prevention include pathologizing the body as inherently diseased which supports the maintenance of dependence on expert gatekeepers for women’s health, as noted by Clarke and Binns (2006, p. 45):

The latent analysis supports the preeminence of the medical frame. In addition, it noted that medicine was described with optimism and as “good”, the body and its functioning were often portrayed as “bad”, doctors were described as heroic, individuals were held to be responsible and blamed for failure to prevent the disease or to get to the hospital in time. In the midst of all this ratification of medicine, there were significant indications of contradictions and changes in opinion over time. Thus, on the one hand, these stories underline the appropriateness of a biomedical frame, yet on the other hand, they may

inadvertently undermine that message through the presence of confusing and contradictory information. Readers may be led to two possible and paradoxical conclusions at the same time. On the one hand, they may understand that they should rely on medicine for prevention and for treatment but, on the other hand, that the solution of today might be the problem of tomorrow. It is possible that such paradoxical messaging could serve to exacerbate fear in the reader and in so doing reinforce the medicalized understandings of disease, treatment, and prevention. Altheide (2002) argued that the generation of fear by the media has the function of supporting the status quo. In this view the media may serve to undermine the capabilities of citizens to care for themselves and to make good and healthy decisions.

The medical frame for risk reduction and maintenance was supported by contextualizing all aspects of CVD as the culmination of undiagnosed and unmanaged risk factors – the inevitable heart attack (Clarke & Binns, 2006; Thompson et al., 2000). These unescapable heart attacks were further described in terms of anatomical changes to the cardiovascular system using simplistic, mechanical metaphors such as the “cracking” of “brittle” blood vessels similar to the cracking of eggshells (Clarke & Binns, 2006). Descriptions of the anatomy and physiology of the body lacked information about the complexity of the developmental stages of CVD and the contributing influences of lifestyle and socio-structural factors (Clarke & Binns, 2006; Clarke & van Amerom, 2008). When CVD prevention was explicitly discussed within the medical frame, pharmaceutical advances, novel scientific techniques, and surgical treatments were presented through contradictory messages that simultaneously encouraged and discouraged their use (e.g., hormone replacement therapy) (Clarke & Binns, 2006; Clarke & van Amerom, 2008; Clarke et al., 2007).

Further complicating these messages, Clarke et al. (2007) noted that women were portrayed as victims of the medical community as a result of under-diagnosis, misdiagnosis, mistreatment, and unintentional research bias. Women were blamed for not responding to medical treatment as favourably as men due to narrower blood vessels and arteries, shapes of women's chests and breasts, and estrogen levels, and for not taking urgent medical action for their risk and acute events (Clarke et al., 2007; Edy, 2010). The body was constructed with the anthropomorphic qualities of thieves and evil trouble-makers, and drugs as heroic life-saviours (Clarke and Binns, 2006; Clarke et al., 2007; Edy, 2010; Gonsalves et al., 2015). These findings are illustrated in the following quotations from Clarke and Binns (2006, p. 42), and Miller and Kollauf (2002, p. 259), respectively: "This depiction frames medicine as almost always triumphing over 'evil' in the body. Articles described the effects of cholesterol on the arteries as troublesome." And "In 1991 the AHA presented 'Silent Killer ... A TV Special for Women' that dramatized 3 true stories of women with cardiovascular disease."

The portrayal of risk reduction and management strategies and acute cardiac events also took the form of lifestyle and behavioural guidelines. In this sub-theme, established risk reducing strategies within most women's risk were promoted (e.g., regular physical activity, smoking cessation/reduction) in both responsible and problematic ways (Clarke & Binns, 2006; Clarke & van Amerom, 2008; Edy, 2010; Gonsalves et al., 2015; Miller et al., 2002; Roy, 2008; Turner et al., 2008). Responsible risk reduction that promoted women's agency and capacity involved individual responsibility, governance, and monitoring which supported health promotion through these acts of neo-liberalism (Edy, 2010; Miller et al., 2002; Turner et al., 2008). When discussed in this frame, a focus on individual choices in reducing risk problematically places blame on women for developing CVD (Clarke & Binns, 2006; Clarke & van Amerom, 2008; Gonsalves et

al., 2015; Roy, 2008). Changing one's way of living to more heart-healthy lifestyles was described as making easy and simple modifications to one's daily routine by assuming that all women have the resources, inclination, and knowledge to manage their health (Clarke & Binns, 2006). In promoting healthy lifestyles affordable by affluent women, women were encouraged to engage in these experiences in a group with their friends, indicating that all women at CVD risk have social networks with similar backgrounds and interests (Clarke & van Amerom, 2008; Fotiadou et al., 2014). Vague, inaccurate, and incomplete information was presented to women in engaging in lifestyle changes such as smoking cessation for which no strategies were listed with empty recommendations such as "take action" (Edy, 2010).

Problematic portrayals of risk reduction included drawing on a culture of consumerism that met corporate goals. These messages were catered to women with the inclination and financial means to purchase merchandise and services from clothing, jewelry, fitness, cosmetics, dietary supplements, and entertainment industries (Clark et al., 2016; Gonsalves et al., 2015). Positioned as required acts in prioritizing one's health, taking care of oneself in this manner were acts only achievable by those from particular backgrounds, as demonstrated below:

The practices required to 'take care of oneself' were presented as possible for all women and as a matter of personal choice in the campaign materials. For example, the President of the Heart and Stroke Foundation, Canada, appears...in a video titled 'How I Fit Exercise Into My Day' and shares the importance of fitting regular physical activity into daily life and offers advice on how to make this happen. Her advice includes...drawing on her own experiences she suggests that when travelling women try 'to stay in hotels that have a reasonable gym.' This advice assumes that certain economic and social resources are available to all women and excludes those for whom the message may not

resonate or is not feasible. The position of privilege and affluence from which the speaker is giving advice remains unacknowledged as does any conversation about what material, economic, physical and political barriers women might face and how these forces shape their decisions. (Clark et al., 2016, p. 8)

Yet another form of risk reduction which constructed the face of all women at risk as affluent and highly educated, involved the act of demanding specialist consultations and contributing to larger social groups dedicated to activism and advocacy for women's health (Gonsalves et al, 2016; Roy, 2008). While the meanings of such activism and advocacy support the glorification of the medical industry, the means with which such help may be obtained was positioned within the hands of women at risk (Gonsalves et al., 2015; Roy, 2008). However, ultimate restitution of cardiovascular health was dependent on the expertise and benevolence of medical experts in sharing their scientific knowledge and services to keen and eager women. This narrative was achieved through combat metaphors that positioned women as soldiers in the battle against their own bodies and poor lifestyle choices, further blaming women as instigating the fight against themselves (Clarke et al., 2007; Gonsalves et al., 2015; Roy, 2008). Reasons for activism included cautionary tales which highlighted women's concerns for breast cancer, lack of awareness among women and the medical community, and disregard for CVD risk factors, as noted by Roy (2008, p. 469) below:

Responsibility for health is also emphasised in the magazines through the presentation of consequences which could occur if one does not follow the prescriptions provided in the health articles. These consequences were presented in two general ways. Most prominent were the personal cautionary tales of 'ordinary women' profiled in the articles which will be detailed below. Secondly, the consequences of inaction or incorrect action were also

presented in the text of articles by authors and cited experts. In the following example, the risks of inaction surrounding heart disease are presented: Alarms sounding clear and present danger for women at risk of heart disease are often muted by a stronger fear of breast cancer, lack of awareness both by themselves and their physicians, and failure to heed the major risk factors, including genetic disposition (Orton 2000: 64). The reader is warned of the dire consequences and she ignores this information at her own risk, highlighting her individualised responsibility to be knowledgeable about and to prevent heart disease.

On the other hand, this form of aggressive medical activism also represented a general distrust of the medical community with professionals portrayed as unknowledgeable about women's risk, the latest scientific innovations, and prescription drugs (Edy, 2010; Gonsalves et al., 2015). This interpretation acknowledges the fallibility of expert gatekeepers, which positions women as accountable for seeking the "right" medical professional and judging the competency of medical practice assigned to their cardiovascular care (Gonsalves et al., 2015). Arriving at these conclusions requires an advanced level of scientific understanding, the time to keep oneself abreast of evolving medical literature, and the access to health care institutions where leading technologies are available for patient use (Gonsalves et al., 2015).

5.2.3 The delegation of responsibility for maintaining women's cardiovascular health

Agents held responsible for women's cardiovascular health were women at CVD risk themselves, expert gatekeepers, social support providers, and political agents in power (Clark et al., 2016; Clarke & Binns, 2006; Clarke & van Amerom, 2008; Clarke et al., 2007; Compton, 2006; Fotiadou et al., 2014; Gonsalves et al., 2015; Miller & Kollauf, 2002). In exerting agency in maintaining their health, women's roles comprised seeking medical care to identify specific

risk factors (hypertension, hypercholesterolemia, diabetes), and in obtaining timely treatment for acute cardiac events such as heart attacks and strokes (Compton, 2006; Gonsalves et al., 2015; Miller & Kollauf, 2002). Women's identities were limited to White, heteronormative caregivers in meeting their daily risk reduction goals, implying that women at greatest risk are unable to maintain their cardiovascular health (Clark et al., 2016; Clarke et al., 2007; Fotiadou et al., 2014; Gonsalves et al., 2015). These women were further contextualized as superwomen who were in high social standing, held high paying employment positions, were highly educated, had thin/toned physiques, and cared about fashion and entertainment (Clark et al., 2016; Clarke & Binns, 2006; Clarke & van Amerom, 2008; Gonsalves et al., 2015). Personal traits of assertiveness and persistence were required in order to remain updated on scientific, fashion, entertainment, and fitness trends, and fight for consultations with leading specialists (Gonsalves et al., 2015). In this way, women were simultaneously positioned as compliant patients and consumers of the medical industry, and as empowered activists with the desire and capacity to effect structural changes in how women's CVD is diagnosed and treated (Clarke et al., 2007; Gonsalves et al., 2015; Roy, 2008; Wharf Higgins et al., 2006). Further supporting the identities of empowered superwomen, women at CVD risk made time in their busy schedules to engage in awareness raising activities to support educational health campaigns to make women aware of their CVD risk, as well as to support female community members in reducing their risk and recovering from acute events (Clarke & van Amerom, 2008; Fotiadou et al., 2014; Gonsalves et al., 2015).

Aligned with the overall meaning that the medical community is the dominant social agent held responsible for women's health, the type of medical expert played an important role in positioning the medical community in two broad camps (Compton, 2006; Edy, 2010; Gonsalves

et al., 2015; Miller & Kollauf, 2002; Park & Reber, 2010; Roy, 2008; Moynihan et al., 2000; Sarrazin et al., 2014; Sokol et al., 2010; Sumpradit et al., 2004). One type of medical expert comprised the unknowledgeable, uncompassionate doctor who was unaware that CVD is women's leading cause of death, female-specific symptoms, and outdated in screening and treatment options (Miller & Kollauf, 2002; Gonsalves et al., 2015). The empowered activist identity for women was situated against this group of medical doctors in advocating for better health care services (Roy, 2008; Gonsalves et al., 2015). The other camp of medical doctors were leaders in their health units, familiar with the latest and innovative technologies, and appreciative of women's CVD risk factors and symptoms (Compton, 2006; Edy, 2010; Roy, 2008). Women were encouraged to seek services from these types of doctors and assume the roles of compliant patients in order to identify, manage, and treat their CVD risk (Edy, 2010; Gonsalves et al., 2015; Roy, 2008). Compliant women obtained prescriptions from these doctors for drugs advertised directly to consumers (Miller & Kollauf, 2002; Moynihan et al., 2000; Sarrazin et al., 2014; Sokol et al., 2010; Sumpradit et al., 2004). Prescriptions for these drugs supported the construction of compassionate physicians who took the time to explain the suitability of the drugs to patient profiles, the ultimate goal of which comprised pharmaceutical sales (Sokol et al., 2010). These messages were at odds with responsible health promotion, the latter of which aims to educate the public about health conditions and their treatment options (Sokol et al., 2010). The following quotation highlights the responsibility placed on women to obtain medical services from the former camp of physicians and specialists by noting the directive actions with which these preferred services could be obtained:

The magazines directly underline this responsibility to pursue good health in subtle and not-so-subtle ways. One technique involves the use of language which denotes health as

an important priority, one that women/readers should adopt: Jolly [a physician with heart disease] is adamant that women take on their own health promotion and seek help.

“Women need to push the agenda”, she says. “They need to ask for second opinions. They have to be able to say to their doctors, ‘I think this is heart disease’. They need to fight for consultation with a cardiologist... The bells are ringing. They’ve got the ammunition and they need to use that ammunition to fight for awareness”. (Roy, 2008, p. 428)

Journalists of mass media content were positioned and held accountable as messengers between the medical community and the public at large, to perform as better representatives of the medical industry (Moynihan et al., 2000; Pribble et al., 2006). In the following excerpt, journalists were encouraged to consider implications of medical advertising to aid the public’s decision-making in personalizing their consumption of medical reporting in the media:

Rather than prescribing or proscribing specific behavior on the part of the media, we believe it may be valuable to articulate basic principles of high-quality medical reporting, in line with an evidence-based approach to medicine. When reporting on new forms of technology or new treatments, journalists and editors might consider the evidence available in relation to the following questions: What is the magnitude of the benefit (e.g., both absolute and relative), and what groups of patients can be helped? What are the associated risks and costs? What are the possible links between the sources of information (studies or experts) and those (such as the manufacturers) who promote the therapy? Although not exhaustive, these questions could help inform attempts to improve the quality of medical reporting. (Moynihan et al., 2000, p. 1649)

Social support providers included family members such as daughters, friends, and

community members (e.g., women who attended the same Church) (Clarke & Binns, 2006; Clarke & van Amerom, 2008; Fotiadou et al., 2014; Gonsalves et al., 2015; Miller & Kollauf, 2002; Sarrazin et al., 2014). Although women were encouraged to ensure that their husbands obtained appropriate health screens and engaged in risk reducing behaviours, these acts were not portrayed to be reciprocated in the media data (Miller & Kollauf, 2002). Together with women's overall caregiving responsibilities towards their husband, women's unwavering and unreciprocated support for their husbands limited their identities to gendered inferiority within marital relationships (Gonsalves et al., 2015; Miller & Kollauf, 2002). Instead, female friends were noted to assist women in meeting their heteronormative household and childcare duties while they took care of their risk and recovered from acute cardiac events (Fotiadou et al., 2014). Lifestyle behavior modifications that supported the notion that risk is associated with affluence and high status was implied when women's risk reduction was linked with expensive actions such as getting massages (Clarke & Binns, 2006). Social assistance was also reported to enable women cope with the physiological effects of having sustained an acute event (e.g., seizures following a stroke) (Fotiadou et al., 2014). Female family daughters provided care to their elderly mothers in helping them make sense of their medications (e.g., anticoagulants) to maintain their cardiovascular health (Sarrazin et al., 2014).

The fourth group of social agents responsible for women's cardiovascular health were leaders in the political and health care industries such as Health Ministers and medical health officers. Organizations and agencies in these federal sectors (e.g., National Institutes of Health, U.S. Food and Drug Administration) were held accountable for creating policies and enforcing regulations (Gonsalves et al., 2015; Miller & Kollauf, 2002; Moyer et al., 2001; Park & Reber, 2010; Wharf Higgins et al., 2006). These policies and regulations were expected to arrange

medical conferences and educational programs to address limited awareness of CVD as the leading cause of women's deaths, improve health care services and delivery, and enforce mandatory lifestyle changes (Gonsalves et al., 2015; Miller & Kollauf, 2002; Moyer et al., 2001; Park & Reber, 2010; Wharf Higgins et al., 2006). Other authors of critical studies interpreted that data sources did not consider the identities of women at greatest CVD risk who fall in the cracks of health care legislature due to structural inequalities such as access to essential services (Gonsalves et al., 2015). Although mass media data sources promoted various governing bodies as appropriate social agencies to control women's health, no single organization or leader was held accountable for women's risk, as demonstrated below:

Our results suggest that contributing to the context within which health authority staff were expected to take up CVD prevention were media stories conveying that the responsibility and accountability (“buck”) for health was consistently lobbed (“passed”) among health care professionals, organizations, and governments, with no one prepared to admit culpability: Primary prevention, in terms of health behaviors, demanded a supportive infrastructure (through municipal/regional/provincial policies, resources, and programs) to assist citizens in eating healthier, curbing smoking habits, and nurturing active lifestyles. In turn, treatment of symptoms and disease depended on a sufficient cadre of fairly compensated health professionals, equitably treated by the health authorities. Reducing wait times, enhancing diagnostic equipment and surgical technology, and adequately staffing hospitals required that health authorities were funded appropriately by the provincial government. And finally, the training and hiring of more health professionals to alleviate shortages and suitable funding for health authorities necessitated additional federal monies to the provincial coffers. (Wharf Higgins et al.,

2006, p. 354)

5.3 Discussion

The research questions that guided data collection and analysis helped to identify and explore the (re)presentations of women's CVD in traditional media and user-generated digital media content, and to understand how media (re)presentations of women's CVD may contribute to gendered identities and health promotion for women at CVD risk. The results of this study helped fill research gaps by providing a synthesized understanding of the portrayals of women's CVD in Canadian and U.S. mass media messages as identified by qualitative research shaped by various epistemologies and methodologies from 2000 to 2016. A few similarities were noted in traditional and user-media narratives, such as the construction of women's identities as heteronormative caregivers to husbands and children (Clark et al., 2016; Clarke et al., 2007; Fotiadou et al., 2014). User-generated media data differed from traditional media data in the portrayal of women's health management as largely independent of medical dependency and consumerist contexts (Fotiadou et al., 2014; Gonsalves et al., 2015). Additionally, the results provided a synthesized "face" of the typical women at risk for a taken-for-granted "man's disease" (Clarke & Binns, 2006; Clarke & van Amerom, 2008; Clarke et al., 2007; Edy, 2010; Miller & Kollauf, 2002; Roy, 2008). The results from Stage Four of this meta-synthesis led to novel insights in the form of two overarching themes in the current Discussion section, as follows; the medicalized culture of women's CVD risk, and the feminization of cardiovascular healthism.

5.3.1 The medicalized culture of women's CVD risk

Women's risk for CVD was portrayed as scientific mysteries in comparison to the male "gold standard" which may be solved by medical experts, scientific researchers, and

pharmaceutical revolutions (Clarke et al., 2007; Gonsalves et al., 2015). Women's roles within this theme were constructed within a culture of dependency through duties such as donating to companies and researchers, consuming direct-to-consumer pharmaceutical advertising, and aggressively seeking multiple consultations from medical professionals (Gonsalves et al., 2015; Park & Reber, 2010; Roy, 2008; Sarrazin et al., 2014; Sokol et al., 2010). Thus, the typical women who emerged as being at CVD risk in the medical frame comprised affluent and educated women with the inclination to support health causes and campaigns, with the time and desire to seek numerous health specialists (Clark et al., 2016; Gonsalves et al., 2015; Roy, 2008; Sarrazin et al., 2014; Sokol et al., 2010). The construction of medical dependency positioned women's cardiovascular health as a commodity available for purchase similar to cause-related merchandise purchases discussed in the following theme (Moore, 2010; Rail & Beausoleil, 2003). For example, consuming direct-to-consumer drug advertisements and obtaining prescriptions based on these pharmaceutical advertisements was positioned as an empowering act of taking control of one's aging body but ultimately supported medical dependency (Sokol et al., 2010). Despite the medicalization of women's risk, men's risk and recovery after receiving medical drugs, treatments and surgery was described with optimism whereas women were positioned as victims of medical professionals and researchers, with poor prognosis once diagnosed and/or treated (Clarke et al., 2007). This construction of women's risk and recovery contextualized how portrayals from the mid-2000s continued to constrain women's identities to dependent medicalized victims. The victim identity was shaped by historical ideologies of CVD as a man's disease, with women's experiences of cardiac issues limited to maternity wards and whose self-reported acute cardiac event symptoms were diagnosed as cardiac neurosis in the 1920s (King & Paul, 1996).

Characteristics of paternal medical experts were portrayed as falling within one of two camps – “good” doctors who demonstrated competency in addressing women’s CVD, and “bad” doctors contextualized with limited awareness of women’s risk and limited knowledge of maintaining health (Clarke et al., 2007; Compton, 2006; Gonsalves et al., 2015; Miller & Kollauf, 2002; Roy, 2008). This division of medical professionals is aligned with current literature about the general lack of awareness of women’s CVD by the medical community (Bairey Merz et al., 2017). However, despite this portrayed segregation of front-line medical professionals in the media, readers were not provided with information about how one may go about discerning between the two types of doctors they encounter. Women without any personal or family CVD history, who maintain healthy risk factor profiles through lifestyle choices, and for whom health screens indicate low CVD risk may not require to seek consultations with multiple cardiologists. Chronic hypervigilance and fear of the medical industry may contribute towards and exacerbate stress levels (a risk factor for CVD), or result in breakdown of positive and beneficial patient-physician relationships. It is implications such as these that are indicative of a media environment with contradictory, confusing, and vague meanings about women’s CVD noted by Mosca et al. (2013, 2006) as reasons for which women remain unaware of their risk and report lack of engagement in risk reducing behaviours.

Authors of primary articles published in the mid-2000s, such as Pribble et al. (2006), recommended that the medical community partner directly with the mass media industry to convey more appropriate health messages to viewers about women’s CVD. While such collaborative efforts had the potential to create opportunities for more relevant and appropriate messaging, they further positioned the medical community as being in control of public health and women’s bodies (Clark et al., 2016; Gonsalves et al., 2015; Pribble et al., 2006). As revealed

by Clark et al. (2016) and Gonsalves et al. (2016) who answered these calls for further research, such as Canadian and U.S. campaigns promoted similarly problematic messaging. In these campaigns, images for women at CVD risk continued to exclude identities of women at greatest risk (e.g., limited to White, affluent women), and risk reduction/management supported dependency on medical gatekeepers (Clark et al., 2016; Gonsalves et al., 2015). The pervasiveness of mass media health messages that systematically worked to first identify, and then erase the faces of women at greatest risk, ultimately ensured the continued financial success of the medical and pharmaceutical industries (Miller & Kollauf, 2002; Sokol et al., 2010). The recent media campaign trend in soliciting donations to find the medical cure to women's CVD supported past media portrayals that blamed women's aging bodies, specifically women's reproductive systems, for CVD risk (Clarke et al., 2007; Gonsalves et al., 2015; Hoffman-Goetz et al., 2003; Mastin et al., 2002; Miller & Kollauf, 2002). Despite the recent media acknowledgement that the medical community does not have all the answers to how women's bodies function, and despite established scientific knowledge about the benefits of lifestyle changes, women's risk reduction is still portrayed as best managed by medical experts (Gonsalves et al., 2015; Stampfer et al., 2000).

The social construction of women's breast cancer has included the reliance on new scientific knowledge, technological advances, and biomedical health as noted in the current theme about media portrayals of women's CVD (McGannon et al., 2016; Sulik, 2009). News media about women's breast cancer similarly portrayed technoscience (screening technologies, prophylactic mastectomies) as moral imperatives to meet the agendas of scientific researchers, pharmaceutical companies, and the medical system (McGannon et al., 2016). Problematic and positive implications of forceful privileging of technoscience has been shown to include blaming

women for moral irresponsibility in developing disease, and better informing some women about detection and treatment options, respectively (McGannon et al., 2016). Within this medical frame, women's cardiovascular health identities were further aligned with breast health identities based on "becoming" the illness classification or somatic self through association with and knowledge of scientific and technological advancements (Sulik, 2009). In making the assumption that all women at CVD risk were aware of scientific jargon, terms, and frames of references, women were left with limited resources to understand disease risk, symptoms, and treatments (Sulik, 2009).

5.3.2 **The feminization of cardiovascular healthism**

Neoliberal healthism refers to the movement that positions women as consumers versus patients of health care and accountable for their health outcomes by engaging in acts of empowerment as they take control of their disease risk (Gibson, Lee, & Crabb, 2015). Lifestyle changes were positioned as supplemental/alternative to medical management and also excluded female sub-populations at greatest CVD risk (i.e., racial and ethnic minority backgrounds, low socio-economic backgrounds) (Clarke & Binns, 2006; Clark et al., 2016; Gonsalves et al., 2015). The broader meanings on which this positioning drew were similar to those of the previous medicalized culture frame (Clarke & Binns, 2006; Clarke & van Amerom, 2008; Clarke et al., 2007; Edy, 2010; Miller & Kollauf, 2002; Roy, 2008). Particularly, implications of situating lifestyle changes as supplementary versus complementary to medical management included contextualizing women at CVD risk as out of control over their life choices, lifestyle changes as futile in reducing risk, pathologization of the female body, and glorification of medical and pharmaceutical experts (Clarke & Binns, 2006; Clarke & van Amerom, 2008; Clarke et al., 2007; Edy, 2010; Miller & Kollauf, 2002; Roy, 2008).

Related to the foregoing theme of the medicalized culture of women's CVD, the feminization of cardiovascular healthism theme reinforced a few taken-for-granted notions by positioning risk reduction within women's social norms and expectations (Clark et al., 2016; Gonsalves et al., 2015). Self-governance, self-monitoring, and individualized risk reduction through lifestyle/behavioural choices were limited to White, affluent, heteronormative women in social power and caregiving roles (Clark et al., 2016; Clarke et al., 2007; Edy, 2010; Gonsalves et al., 2015). This narrative was achieved through numerous ways. When images were present in mass media stories, these focused on White, female celebrities, political leaders and models, conveying their personalized messages for risk reduction contextualized by their positions of social power (Clark et al., 2016; Compton, 2006; Gonsalves et al., 2015; Hoffman-Goetz et al., 2003; Mastin et al., 2002; Welch Cline et al., 2004). Risk reduction in text and images were tied to meeting trendy social norms and appealing appearances such as purchasing merchandise (cosmetics, clothing, etc.) and participating in fitness-oriented risk reduction with goals to look thin/toned (Gonsalves et al., 2015). This feminized healthism is similar to the Pink Ribbon campaign to raise awareness of women's breast cancer risk which was formed for White, heterosexual, affluent, and influential women, and for whose perspectives and experiences the current illness culture is still catered (Gibson, Lee, & Crabb, 2016). As further noted by Gibson et al. (2016), awareness of disease risk by women who do not identify with these social categories arise from such cultural and discursive barriers that shape and constrain the meanings attached to cultural diversity in campaign messages. The fairy-tale narrative of the heterosexual, affluent, thin, doting wife and mother at CVD risk supported the notion that a woman's life's calling is to find a male life partner, have children, and keep up appealing/attractive physical appearances (Glenn et al., 2013; Gonsalves et al., 2015). The impact of CVD risk and acute

events on women's lives were discussed in light of the strain these posed on caregiving duties to children and husbands (Clark et al., 2016; Clarke et al., 2007; Fotiadou et al., 2014; Gonsalves et al., 2015; Miller & Kollauf, 2002). The social identities for all women at risk were constructed as limited to inferior gendered roles to maintain normative social order – women were responsible for household and child-rearing duties, and men were responsible for returning to work stronger than before their acute cardiac events (Clark et al., 2016; Clarke et al., 2007; Fotiadou et al., 2014; Gonsalves et al., 2015; Miller & Kollauf, 2002). The construction of feminine ideals of finding a suitable male partner presented in media portrayals about weight loss were similarly positioned against the ideal masculine traits of physical strength and vigor, hard work, and fortitude (Glenn et al., 2013).

Situating the health advocate roles for women in literature surrounding healthism and breast cancer, individual responsibility and accountability in seeking medical help and raising awareness for women's CVD may be interpreted within concepts of entrepreneurship and morality (Gibson, Lee, & Crabb, 2016; McGannon, 2016). In this interpretation, such acts of healthism constituted the promotion of attempts to retrieve power in making sense of their CVD risk and aligning medical concern towards their health (Greenhalgh & Wessely, 2004). Activated patients were encouraged to demand restoration of power balance between the medical industry and their own agency, and to work to achieve their health-related rights from an institution that historically and currently compromise and undermine their CVD risk (Gonsalves et al., 2015; Roy, 2008; Sokol et al., 2010). Further, activist identities focused on achieving medical treatment versus disease prevention/risk reduction, and thus constituted a particular form of social agency which portrayed a disease out of women's direct control (Gonsalves et al., 2015; Roy, 2008; Sokol et al., 2010). Women with histories of breast cancer were similarly portrayed as archetypal

heroines with courage and vitality associated with philanthropic campaign causes in more recent years (King, 2010). This identity construction contrasts previous portrayals of both women's CVD and breast cancer risk, meanings of which evolved from stigmatized diseases to an understudied epidemic in need of public and political changes, to the current foregoing notions of empowerment (King, 2010; King & Paul, 1996; Miller & Kollauf, 2002; Moore, 2008). The Pink Ribbon campaign mirrors neoliberal acts of civic and self-responsibility to voluntarily fund organizations through merchandise purchases without public understanding of power relations and social determinants of women's health (e.g., institutional racism, poverty) (King, 2010).

In this Chapter, I presented the research questions and discussed the results of the meta-synthesis of qualitative research on media portrayals of women's CVD within three descriptive themes and two interpretive, higher-order themes. In the next Chapter, I present the research questions and discuss the findings of the ethnographic content analysis of the HSFC Facebook page posts, user comments, and external links.

Chapter 6

Study two: An ethnographic content analysis of women’s health promotion on The Heart and Stroke Foundation of Canada Facebook page

In this Chapter, the research questions that guided the ECA of the HSFC Facebook data are presented. Next, the findings of the ECA of the HSFC Facebook data are outlined and discussed (see Gonsalves, McGannon & Schinke, 2017). Consistent with social constructionism and the interpretive phase of ECA, results and discussion are presented together.

6.1 Research questions

The HSFC is a Canadian agency that aims to empower adults to live healthy lives, to save lives by enabling faster and better cardiac and stroke emergency response and treatment, and to promote recovery by enhancing support for survivors, families, and caregivers (HSFC, 2018). The HSFC Facebook page received 254,403 “likes” by Facebook users with 234,572 users “following” updates posted on this page (Facebook, 2018a). The second study comprised an ECA of Facebook posts by the HSFC and user interactivity with these posts to explore portrayals of women’s identities and risk management surrounding the re-branding transformation of the HSFC on November 15, 2016 (HSFBlog, 2016). The purpose of the re-branding was to widen the HSFC target demographics with a greater emphasis on women, and racial and ethnic minority groups in messages (HSFBlog, 2016). The following research questions guided this study: (1) What narratives are used by the HSFC and Facebook users to construct health identities for Canadian women at risk for CVD?, and (2) What are the implications of these narratives on personal meanings of women’s CVD, risk factor reduction, and health-related behaviours?

6.2 Results and discussion

The findings from this data are outlined within the context of an overarching theme entitled “philanthropy as an act of women’s health promotion” with the following three sub-themes feeding into the construction of women’s CVD risk and identities; “a culture of consumerism for women’s health promotion”, “the cardiovascular system of women as sites of fear and dependence”, and “Canadian women’s CVD risk, acute events, and treatment as a shared, community experience”.

6.2.1 Overarching theme: Philanthropy as an act of women’s health promotion

Within the overarching theme of philanthropy as an act of women’s health promotion, the public was positioned as philanthropic supporters of activities by the HSFC and partner organizations. While some of these activities promoted performance of healthy lifestyles (e.g., Jump Rope for Heart to raise funds for scientific research), the objective of these events constructed risk reduction as singular events specific to certain days of the year. All other philanthropic support was promoted independent of lifestyle behaviours and focused instead on donating money to the HSFC and partner organizations (e.g., Roots Canada Ltd.) with the goal of facilitating life-saving scientific research and merchandise/product sales. Women’s identities as doting mothers, grandmothers, and wives, and the focus on finding a “cure” to alleviate women’s CVD risk further normalized heteronormative and caregiving roles, and dependency for all women at risk (Clark et al., 2016; Clarke et al., 2007; Gonsalves et al., 2015). Aligned with current literature surrounding media portrayals of CVD, meanings within this overarching theme emerged through 3 sub-themes, as follows: a culture of consumerism for women’s health promotion; the cardiovascular system of women: a site of fear and dependence; and women’s CVD risk, cardiac events, and treatment: a shared, community experience. Although these sub-themes are presented separately, meanings emerged through an intersection of each sub-theme,

and complemented each other to support the overarching theme.

6.2.2 Sub-theme one – A culture of consumerism for women’s health promotion.

The HSFC Facebook posts and user consumption of these posts promoted two sets of views about what it meant to sell, purchase, and wear branding apparel. The HSFC consistently served as a channel to market toques and bracelets with the new logo sold by Roots Canada Ltd., which is an “inclusive lifestyle brand for those who want to enjoy the moment and embrace the spirit of the open air” (Roots Canada Ltd., 2017). Roots Canada Ltd. specializes in the sale of leather merchandise, accessories, footwear, and clothing for men, women, and children (Roots Canada Ltd., 2017). The partnership between the HSFC and Roots Canada Ltd. is particularly symbolic given the HSFC goal to meet the CVD needs of an increasingly diverse Canadian population at risk, and similar goals of Roots Canada Ltd. to cater their merchandise to instill “Canadian confidence” through their “authenticity, quality, and unwavering integrity” (HSFBlog, 2016; Roots Canada Ltd., 2017). The Roots Canada Ltd. design and sales teams aim to capture the essence of the Canadian outdoors and are inspired by Canadian landscapes such as Algonquin Park, with leather merchandise manufactured in Canadian facilities, to provide a sense of what it means to be Canadian through international product sales (Roots Canada Ltd., 2017). Although the Facebook data did not disclose what percentage of merchandise sales were donated by Roots Canada Ltd. to the HSFC, Roots Canada Ltd. is acknowledged as a national corporate partner to the HSFC as a result of their donation of <\$25,000 (HSFC, 2018).

Through two different plotlines, the HSFC posts and Facebook user comments about the sales of Roots Canada Ltd. toques and bracelets framed women’s CVD risk through a loss-focused lens and through a lens of attaining appealing appearances. The HSFC loss-framed approach to merchandise sales was described by focusing on deaths of family members,

aggressively marketing the products, providing users with the external link to make purchases, and following-up with consumers by noting their appreciation for purchasing products. The following HSFC quotations from March 1, 2017, demonstrate advertisements for Roots Canada Ltd. products and purchasing information offered to female Facebook users:

We were overwhelmed with the response to our Roots Canada items and want to give you a bit more time to purchase the toques and bracelets to wear your support! Once you get yours in the post, don't forget to share it with us using the hashtag, #MoreMoments on Instagram and Twitter –<http://bit.ly/RootsHeartMonth>,
Hi Rose, You can order the toques and bracelets from the Roots Canada website: <http://bit.ly/RootsHeartMonth> ❤️<3 Thank you for your support!!, and
Hi Hailey! You can order yours from the website: <http://bit.ly/RootsHeartMonth> - Thank you for your support ❤️<3

Facebook users engaged with these advertisements by positioning the toques as symbolic objects in memory of female family members who sustained fatal cardiac events, in making sense of their own feminine experiences with acute cardiac events, and as a benevolent act by the HSFC and entertainment figures, as shown in the following quotations: “[Location withheld] stroke survivor at age 39!! Always believed I could beat it & was motivated by love of friends and family. Love my new Roots toque!! ❤️❤️”, “I'll have to check these out since I'm a heart attack survivor, and a fan of Canadian brand Roots clothing!! 🙌👍❤️”, “After suffering a heart attack and Sudden Cardiac Arrest two months ago I am happy to show my support and placed my order for my hat yesterday. ❤️❤️”, “March 13 I will celebrate 15 years since my stroke. Just purchased my toque ❤️❤️”, and “Will you make one for stroke victims my wife passed after a stroke from an A.V.M.”.

The HSFC collaborated with female entertainment figures to market the toques, with meanings surrounding promotion of a particular type of outward appearance; trendy, appealing, and comfortable, as demonstrated by the following quotation by 42 year old actress Kristin Booth:

February is heart month! And it's snowing so everyone needs a new toque to make it through the rest of winter and it's soooooo [sic] cozy & cute! Get your limited edition toques available at Roots.com until Feb 28/17

User engagement with these messages from female entertainment figures were limited to praise for the benevolence of these figures as powerful agents of social change, as demonstrated with the following user comment: "I love these canadian [sic] actors who give. So heart warming ❤️💕thank you ladies." While efforts of the HSFC and the female celebrities to bring about change were praised, none of the HSFC and Facebook user messages within this sub-theme were contextualized by CVD risk or prevention, personalization of risk profiles, or cardiovascular health maintenance. As a result, this narrative supported broader ideologies noted by Gonsalves et al. (2016), King (2010), and McGannon et al. (2016) that limited women's health roles and behaviours to passive consumerists to increase corporate revenue and achieve branding goals. Women's agency in risk reducing behaviours within their means (e.g., regular moderate-vigorous physical activity) were subverted to promote institutions in power as powerful gatekeepers of women's health and bodies (Clark et al., 2016; Gonsalves et al., 2015; Wharf Higgins et al., 2006); a notion that is detailed in the next sub-theme. Limiting identities of all women at CVD risk as those with the financial means to purchase branded accessories, as modelled by White Canadian women in positions of social power excluded the identities of women at greatest risk (i.e., lower income levels, race and ethnic minority groups) (Clark et al., 2016; Gonsalves et al.,

2015).

Some Facebook users consumed these advertisements for Roots Canada Ltd. women's merchandise with the novel interactivity features offered for health promotion through social media, by making critical inquiries about the use of donated funds in light of female family members who sustained fatal acute cardiac events. Similar to other for-profit organizations' use of Facebook (Lillqvist & Louhiala-Salminen, 2016), the HSFC branding as a benevolent, paternalistic health agency was reinforced to maintain the unequal power distribution between the HSFC and the public to sustain incoming donations. The HSFC vigilantly policed such user comments to reassure the public that HSFC activities were worthy of philanthropic efforts, and that the HSFC is best equipped to manage the public threat posed by CVD, further minimizing women's agency in risk reduction. A Facebook user personalized Roots Canada Ltd. advertisements with the death of his mother from an acute cardiac event, prompting an inquiry into HSFC expenditure of donated funds, to which the HSFC replied:

Hi [name withheld], This is not correct. As you can see on our web site at <http://www.heartandstroke.ca/what-we-do/financials> for every dollar that we spend, 22 cents is invested in life-saving research, while 36 cents is invested in advocacy for healthy public policies such as tobacco control and nutrition labelling, and health promotion such as stroke survivor support programs and blood pressure screenings. That's 58 cents of every dollar going directly to our mission work. The rest of that dollar is spent on fundraising (39 cents) and administration (3 cents), so that we can raise the money to do the important mission work. We are proud of the strong leadership team at Heart & Stroke. An organization can't run effective programs – which in our case means saving lives – without effective infrastructure and management. Our volunteer board of

directors takes our efficiency very seriously, and we are always looking for ways to be ever more cost effective. We would be happy to discuss further with you after the long weekend if you have further questions.

Similar to the overall meanings inherent in this sub-theme of a consumerist culture, the focus of the foregoing illustration on portraying a particular image for the HSFC at the time of the re-branding transformation served corporate interests. The mission work, advocacy, and screenings noted in this quotation were positioned as reasons for which the public needed to donate to the HSFC, versus the promotion of these healthy lifestyles (tobacco reduction/cessation, blood pressure screenings) as within women's means.

6.2.3 Sub-theme two – The cardiovascular system of women: a site of fear and dependence.

The construction of women's cardiovascular systems as sites of fear and dependence was achieved by problematically portraying women's cardiovascular health and disease through the medical frame, which ultimately glorified the scientific activities funded by the HSFC in order to solicit more donations from the public. One way in which this sub-theme was achieved was by narrowing down all stages of CVD progression to the experience of acute symptoms and the emergency medical treatments received thereafter, made possible by best practices established through HSFC-funded scientific research. Fear surrounding portrayals of acute cardiac events was heightened by exemplifying incidences of CVD in women who engaged in healthy lifestyle behaviours to promote a sense of futility in performing such behaviours. In addition to enticing fear, this message was also contradictory to the reasons for which risk reduction is promoted; up to 82% of risk can be reduced by performing healthy behaviours (Stampfer et al., 2000). Thus, CVD was portrayed as an insidious, unexpected occurrence with which healthy women were

attacked to reinforce the notion that CVD is an inescapable fate and best managed through innovative technologies and procedures made possible by the HSFC. Whereas a focus on heart attacks and management by innovative scientific advances has been noted in prior media portrayals (Clarke et al., 2007; Gonsalves et al., 2015), this study is novel in establishing another level of power in the hierarchy – research funding organizations such as the HSFC. The HSFC was thus positioned as the most powerful agent responsible for women’s health, followed by the research community with whom the benevolent HSFC shared their funds, and the medical community which was held responsible for implementing HSF-funded research into practice in health care delivery. On December 27, 2016, Facebook users were provided with the link to an HSFC article entitled “Marathon runner survives cardiac arrest” from which the following quotation was taken:

At 45, Daphne seemed healthy. The mother of three ate well and exercised regularly, often heading out on early morning runs with friends. It was on one of those runs that she collapsed without warning ... Daphne is alive today because of her quick-thinking companions and because of donors like you. The Heart and Stroke Foundation is Canada’s leader in resuscitation science, translating the latest research findings into guidelines relied on by health care and first aid professionals throughout North America ... Also in 2015, the Foundation partnered with the Canadian Institutes of Health Research (CIHR) to fund research that will improve cardiac arrest survival rates. Together the organizations pledged \$3 million over five years to the Canadian Resuscitation Outcomes Consortium (CanROC). ... “I feel so grateful not only to the friends that I was with, but the first responders, the hospital, the doctors, and everyone along the way that put things into place so I could still be here”, she says. “There are

other people who aren't so fortunate. Every single day I think about it".

In the above quotation, despite Daphne's fitness level and healthy diet, the inability of her regular risk reducing behaviours in preventing an acute cardiac event and protecting her cardiovascular system was the focus of her story. Her survival was attributed to Facebook users who donate to the HSFC, her companions, and corporate collaborations for their research and health care delivery, which was further contextualized with her daily concern for individuals who did not receive HSFC-funded research and subsequent health care. Such a loss-framed approach to health promotion by portraying activities within women's means as futile and portraying survival dependent on particular experts (in this case, experts who practice based on HSFC-funded guidelines), have been known to result in maladaptive coping strategies such as denial of risk and disengagement in risk reducing behaviours (Berry & Latimer-Cheung, 2013).

Fearful portrayals of women's cardiovascular systems was further achieved by personal accounts of how acute cardiac events were experienced. For example, the following quotation from a video posted December 29, 2016, illustrates the use of language to emphasise one woman's "healthy" status and younger age of 39 years:

This is not a story about a healthy 39 year old having a stroke. It's about a healthy 39 year old surviving a stroke. LIFE. We don't want you to miss it. Heart & Stroke™
Saving moments. Funding breakthroughs. Saving lives.™

In this video, the woman's black-and-white childhood pictures and the audio recording of chirping birds abruptly cuts to a scene of emergency medical professionals in personal protective clothing attending to the reader, from the vantage point of lying on a hospital bed, hearing the new audio recording of buzzing medical equipment and seeing images of magnetic resonance imaging scans. The woman tearfully shares the following message in between taking breaks to

cry while reminiscing about her experience with a stroke:

This is the part of my brain that affects speech. This part? Memory. And the part where a blood clot caused a stroke. Thanks to the Heart and Stroke research I received tPA; a clot busting drug that helps erase the effects of stroke.

Once again, a female character's life was attributed to treatment made possible by HSFC-funded research ("Thanks to the Heart and Stroke research I received tPA") with healthy behaviours rendered futile ("healthy 39 year old"). This sub-theme further fed into the overall theme of philanthropy as an act of women's health promotion by soliciting direct donations towards the Breakthrough Fund to financially support regenerative medicine. In this storyline, scientific researchers were positioned as highly knowledgeable and visionary leaders with the ability to develop technological advances to "fix" women's CVD and provide them with hope, as demonstrated in the following quotation from a video requesting Facebook user donations:

...But there is reason for hope... Monthly donations are absolutely vital. These are very complex, time-consuming, difficult experiments to be performed and it requires a steady stream of funding. One of the issues we've had in the past is you have the funding for some time and then the funding dries up and so the experiments have to be put on hold and you're back to square one. ...For the first time in history, Heart and Stroke researchers are on the verge of reversing heart damage. But they need our help. ...Give now.

While the dominant user narratives to these video requests posted numerous times demonstrated compliance with the reinforced identities as compliant donors, two female users positioned themselves in contradictory roles of healthy behaviour advocates interested instead in women's agency in risk reduction. This narrative of women constructing CVD risk within their

means while positioning risk within social determinants of health considerations is a novel finding as women's roles in media narratives were previously limited compliant patients (Clark et al., 2016; Clarke et al., 2007; Gonsalves et al., 2015). The following two quotations illustrate female Facebook user consumption with the Breakthrough Fund donation requests that support a novel understanding of the use of social media for women's cardiovascular health promotion:

While we are on the subject there are many Heart Wise exercise partners in Eastern Ontario. Go to heartwise.ottawaheart.ca for more information. I am proud to be one of those partners for the past 10 years. Post heart and people dealing with chronic illness are getting a lit [sic] of relief with regular exercise. Everybody is welcome., And Part of the money's [sic] should go directly to the folks affected that need cab fare, babysitter money, for healthy food, etc. THAT [sic] would REALLY [sic] be helping on the front line!!!!!! [sic]

6.2.4 **Sub-theme three – Canadian women's CVD risk, acute events, and treatment: A shared, community experience**

Women's risk, acute events, and treatment were contextualized as shared, community experiences which positioned women as caregiving mothers, grandmothers, and teachers, and supported the urgent need for Facebook users to make donations to the HSFC to ensure that mothers, grandmothers, and teachers could continue providing care. The notion that all women at CVD risk are mothers and wives has been noted by prior media scholars (Clark et al., 2016; Gonsalves et al., 2015), and this study added further context to these identities for women by situating these taken-for-granted identities within a philanthropic culture. Meanings behind donations towards the Breakthrough Fund to support regenerative medicine research were to enable grandmothers to celebrate birthdays with their grandchildren and invest time into

intergenerational relationships, as demonstrated by the following HSFC quotations posted February 7, 2017, and March 14, 2017, respectively: “Tina’s birthday celebration with her grandkids ended up being her last. Heart disease steals lives. And the moments families cherish most”, and “Ann’s mom loved to brag about her grandchildren. But Tropea is one that she won’t ever get to meet.”

The HSFC also posted public requests for donations towards their own HSFC-fundraising goals, and in these instances, positioned women’s cardiovascular health as best attained through supportive social networks. In the following quotation, the focus on saving the lives of grandmothers to share life experiences together (i.e., introducing one’s son to one’s mother) was noted as a reason to donate to the HSFC, in a post dated February 26, 2017:

Mariel lost her mother when she was only 27 – her mom, only 59 years young. Mariel got the call that we all dread – her mom was in the hospital –she had suffered a brain aneurysm. Doctors and Mariel were optimistic that her mom would have a full recovery with surgery. That wasn’t the case. Mariel’s mom suffered multiple strokes during her recovery, the next stroke causing worse damage than the last. “Then the final stroke came leaving her with no quality of life, and leaving us with the impossible decision to take her off life support. My mom and I were very close and I knew her wishes – she made it very clear she did not want that kind of life... but I still wasn’t willing to let her go...” – Mariel. Several years later, Mariel was on the Heart & Stroke website and came across the story of Donna [Last name withheld]. Donna was 59, like Mariel’s mom, and went through a similar experience in 2013 – but with a better outcome. Donna was able to participate in a new clinical trial called ESCAPE, involving endovascular therapy, a revolutionary treatment to remove the blood clot from her brain. Partly funded by the

Heart and Stroke Foundation, the trial proved endovascular therapy could cut the death rate from major ischemic stroke in half, and significantly reduce disability in survivors. “Donna’s story made me sad for my mother (and myself if I’m being honest) but happy for her family. And it made me want to save others from going through the same experience. I look at my son who is a year and a half and feel so bad that he will only know [my mom] through the stories I tell. I’m sharing my story not because I want your sympathy and definitely not because I like being in the public eye because I sure don’t – I’m sharing it because I hope I can inspire even a few of you like Donna’s story did for me, and we can help raise more money for more research and save more lives”. – Mariel. Join Mariel and the fight to end heart disease and stroke by donating this Heart Month when our volunteer canvassers come to your door. Please give generously to create #MoreMoments. Mariel’s personal fundraising goal is \$1,500 ...

While the author of this message (Mariel) may have personalized women’s CVD with her own risk profile comprising family history among other potential risk factors, or her strategies to reduce risk, her story positioned donations to the HSFC as the best means to maintain health of other women. The HSFC was further ascribed the qualities of saviours of women’s lives, with survival contextualized through participation in HSFC-funded clinical research trials. Mariel’s mother’s role as a grandmother to Mariel’s son was centralized from her other social roles, and the legacy of Mariel’s mother was established through Mariel’s community-level efforts to further support the HSFC. This description for women’s health management and social identities have been noted to limit potential for risk reducing behaviours, and Mariel drew on identity constructions known to be favoured over others to construct a specific image for all women at CVD risk as mothers and grandmothers (Clark et al., 2016; Gonsalves et al., 2015).

Linking women's identities with these family roles was also achieved by focusing on new scientific investigations about fertility treatments and increased risk of CVD later in women's lives. Whereas women's menopausal bodies were previously pathologized as the primary cause of development of CVD in media articles (Clarke et al., 2007), this study provides novel context for women's reproductive health and choices on their CVD risk. Female Facebook users also contextualized their CVD identities with her maternal identities by reporting gratitude and marveling at their body's ability to carry a baby to term after sustaining acute cardiac events, as demonstrated in the Facebook user post that follows dated December 29, 2016: "Grateful I survived my stroke at age 32, so I could get pregnant 5 months afterwards and have a healthy baby girl 14 months post-stroke. A miracle I'll never forget."

When women's social roles comprised duties other than parenting and being a grandparent, personal traits of compassion were reinforced for women in caregiving employment positions. In particular, donations for HSFC-funded research was promoted through the campaign "Jump Rope for Heart" for which children engage in physical activities (skipping and playing) (HSFC, 2018). In this study, the focus of children's participation at this event was to raise funds in honor of their music teacher; a caring and loved woman who was described as being the "heart" of the school, in a March 17, 2017, CHEK News link quotation, as follows:

"She's really caring and I know she's loves everyone and everyone loves her", says Anika Norfolk. "It's really special to have a music teacher like that". The students are talking about their much loved music teacher who organized the fundraiser in recent years but in November, Mrs. Saunders suffered a heart attack. ... "We're celebrating her because she is the heart of our school", says Organizer Helen Fall. "Mrs. Saunders loves everybody and she has the biggest heart in the world and she always makes time for the

kids. She always makes time for staff”. There’s a special seat reserved for her and a student made mural and as the kids start walking in, she sees that all their shirts read “I’m jumping for Mrs. Saunders”.

In essence, within the sub-theme of women’s CVD as a group experience, the focus of storylines was on community-level efforts to ultimately benefit the HSFC without immediate health gains for women at risk.

Within the present Chapter, I discussed the research questions that guided the ECA of the HSFC data, followed by the results and discussion of the findings; the overarching theme of philanthropy as an act of women’s health promotion with three sub-themes. In the next Chapter, I present the research questions, results and discussion of the critical discourse analysis of the WHA Facebook page data.

Chapter 7

Study three: A critical discourse analysis of the portrayals of women's CVD on The Women's Heart Alliance Facebook page

In this Chapter, the research questions and CDA results of the WHA Facebook data are presented. Consistent with a synthetic approach to CDA, results and discussion are presented together in order to engage with the interpretive phase/links to the literature (McGannon et al., 2016).

7.1 Research questions

The WHA is a U.S. organization which aims to prevent women's CVD diagnosis and fatalities by focussing on the differences between men and women in CVD prevention, health care, and research (WHA, 2017a). The WHA Facebook page received 254,403 "likes" by Facebook users with 234,572 "followers", indicating the far reach of health promotion messages (Facebook, 2018d). The third study was a CDA of Facebook posts by the WHA and user comments to explore how power relations and imbalances, ideologies, and social norms in public health promotion have implications for women's agency in CVD risk reduction. The following two research questions guided data collection and analysis: (1) What discourses are drawn upon by the WHA and public Facebook users to construct cardiovascular health, disease, and risk?, and (2) What subject positions are constructed within particular discourses for women at CVD risk and social agents accountable for women's cardiovascular health maintenance?

7.2 Results and discussion

Meanings associated with women's cardiovascular health, disease, and risk reduction were constructed on Facebook through two primary discourses; a discourse of health equity and a discourse of healthism. Subject positions constructed within the discourses included altruistic

fighters, health activists, and compliant patients and consumers. Each discourse and the associated meanings are outlined followed by the subject positions constructed within these. The subject positions are outlined in relation to the intersecting meanings, within and between, the discourses of health equity and healthism.

7.2.1 **Discourse of achieving health equity**

A discourse of health equity was one in which women's CVD risk was portrayed as a social justice issue which required humanitarian efforts to reduce women's disparities through events to raise women's awareness of risk, support scientific advancement and advocacy, and recommend health care delivery and access changes, and political leadership changes (Gonsalves et al., 2015; Wharf Higgins et al., 2006). This discourse included the construction of women's risk reduction, treatment, and management through cultural ideals of prestige, celebrity, morality and nobility, for social agents in medical and political power as well as general audience members who engaged in specific behaviours (e.g., volunteering to participate in clinical trials, making financial donations to the WHA) (Compton, 2006; Glenn et al., 2013; McGannon et al., 2016).

In this discourse, women's health equity was positioned as achievable through the public's support in volunteering their bodies and donating their income to support medical and pharmaceutical gatekeepers in finding scientific cures for CVD (Farmer et al., 2009). Gatekeeper researchers were placed at the centre of this discourse as direct facilitators of women's cardiovascular health equity similar to past traditional media portrayals of glorified male medical professionals as saviours for individuals at CVD risk (Clarke & Binns, 2006; Clark et al., 2016). When directly engaging with public health messaging about a medicalized version of women's cardiovascular health inequities through social media, Facebook users constructed their realities

of risk within a broader culture of medical consumerism previously noted in traditional mass media (Gonsalves et al., 2015). When personalizing a WHA post on February 19, 2017, about the overall gap in medical knowledge about women's CVD, WHA Scientific Advisor and Director Dr. Bairey Merz was positioned as a compassionate medical expert in the following user comments which implied that the gap in health equity could be filled through noble efforts, knowledge, and morally sound decision-making:

Wish I could go to Cali [sic] to be tested by Dr Bailey Merz as I have heart issues in my immediate family. I've had two angiograms both normal but they say that most women have heart attacks in the smaller vessels. I just want to make sure nothing was missed.

And,

Dr. Bairey Merz is the most compassionate and brilliant physician I have ever met. She works tirelessly for her patients and the general community to treat and educate us about heart disease and my health has improved since I became her patient about 5 years ago.

Big shout out to you Dr. Bairey Merz and the invaluable work you do for women. ❤️❤️

Cultural ideals of prestige and celebrity in managing women's CVD risk were evident and reinforced through the use of visual strategies of images and videos such as positioning of medical and political figures besides national and state flags and donor plaques, wearing laboratory coats and formal suits, with their silhouettes accented by large pieces of jewelry (Clarke & Binns, 2006; Gonsalves et al., 2015). This social positioning of leaders in power besides symbols of national and industry prestige, and personal affluence (Clarke & van Amerom, 2008) were the focus of WHA education campaigns to increase women's understanding of the inequities they face in misdiagnosis, under-treatment, and under-representation in clinical trials for CVD drugs and scientific experiments on the pathophysiology

of CVD risk and progression. Thus, the meanings behind increasing women's awareness of their inequities in order to encourage grass-roots advocacy for achieving equity comprised the simultaneous construction of the medical community as the cause of inequity and the social agents responsible for alleviating the same disparities (Clarke et al., 2007; Edy, 2010; Farmer et al., 2009; Roy, 2008; Wharf Higgins et al., 2006). In contrast, women at CVD risk were seen in casual attire such as sweatpants and hooded sweatshirts, actively engaging in WHA health screens and exercise, denoting a power differential between the two groups of people, with the latter constructed as dependent and in less power/control (Clarke et al., 2007). The identification of this power differential is novel in comparison to U.S. media portrayals 15 years ago in which women at risk were described with the financial means and inclination to purchase jewelry and particular pieces of clothing to support the cause of women's CVD inequity (Gonsalves et al., 2015).

Issues of disparity in the present data were limited to medical health ideals through the use of two rhetorical strategies. First, meanings surrounding WHA efforts to reduce women's health equity focussed on the scientific development of treatment and diagnostic tools catered to the "female" body which was systematically positioned as different and atypical in comparison to the "male" gold standard (Clarke et al., 2007; Gonsalves et al., 2005; Miller & Kollauf, 2002). Second, a focus on achieving health equity within the medical WHA perspective eliminated contexts surrounding CVD risk as a systematic effect of social and political considerations, with a lack of any opportunity for women from lower socio-economic backgrounds to make sense of their risk reduction (Norris et al., 2016). One plotline that appeared to balance the power differential between "victims" of the medical system and the medical saviours with the capacity to reverse inequities that was worked up in this discourse drew upon the notion of women taking

ownership of their risk by obtaining health screens at prestigious health institutions through technological advances not yet available to the public. While the notion of personal responsibility will be outlined further within a discourse of healthism, within a discourse of equity the use of health screens offered by the WHA served to reinforce paternalistic ideals for the WHA in reversing health inequities from decades of inadequate and unjust medical policing of women's CVD (Miller & Kollauf, 2002; Roy, 2008). A focus on surgical advances, pharmaceutical developments, and scientific discovery of the female body took focus away from the established benefits of lifestyle changes within most women's means (Stampfer et al., 2000). Whereas the mission of the WHA was to help women achieve health equity through early screenings (WHA, 2017), dominant meanings surrounding the image of the process and outcomes of health equity in text, images, and videos comprised praise for WHA leaders, political figures, affiliated scientific researchers, and public and corporate donors (Clarke et al., 2007; Clarke & van Amerom, 2008). In this way, although readers were made aware of WHA efforts to reduce women's mortality and disparities as part of striving towards health equity, women's agency in risk reducing behaviours as a tool to maintain health was minimized.

Another feature of the discourse of achieving health equity was the characterization of what a worthy woman candidate meant to the WHA and what aspects of femininity were promoted as being in need of health justice. Precariousness of women's reproductive capacities and duties (i.e., childbearing), and positioning of women's reproductive health as enigmatic and fearful has been noted by scholars to maintain normative social order wherein women's roles are made inferior to promote paternalistic duties of men and gatekeepers (Ussher, 2006; Vertinsky, 1998). Narrowing women's cardiovascular health identities to CVD risk associated with pregnancy complications, childbirth, and breastfeeding supported seeking medical justice as a

means to end health inequity as the meanings in this message were that women's problematic reproductive capacities rendered greater risk in comparison to men, and that they had little control over this form of gendered risk (Ussher, 2006; Vertinsky, 1998). Thus, achieving health equity further removed the potential for women's involvement with their own cardiovascular health management in favour of attempting to reduce their health inequities in comparison to men by seeking different, specialized and more aggressive health consultations (Gonsalves et al., 2015).

In constructing CVD meanings and women's risk, women's identities were presented with dimensionality to portray cardiovascular injustices suffered at the hands of the medical community, the scientific research community, and women themselves (Clarke et al., 2007; Savoie et al., 1999). In one dimension, women who followed expected social norms of conceiving, carrying a fetus to term, and breastfeeding were positioned as being in more need of medical and research attention similar to the portrayals of menopausal women (Clarke & Binns, 2006). Interpreted differently, the implications of the dominant storyline of mothers as requiring greater attention were that lack of reproductive engagements (i.e., women who did not conceive or breastfeed) were unworthy of medical attention, thus held morally responsible (McGannon et al., 2016) for not following the norm of acceptable femininity. In the following illustration from a section titled "more female mice" in an article in U.S. newspaper Miami Herald, Facebook readers of the WHA were directed to read about the efforts of WHA co-founder and entertainment celebrity Barbra Streisand in working towards making women's health a priority to a federal funding agency and governing body the National Institutes of Health (NIH):

We don't have enough money given to us by the NIH and the government to do the research, and we need to do it because women are different than men," Streisand said.

“They have different size hearts. Different size arteries. And the research has to be done on women in the labs on female mice. When I said, “How come you don’t use female mice?” They said, “They are more expensive.” Why are they more expensive? Because they are more complex. They have different hormones. Duh! You can’t do research on women’s heart disease on male mice or on males — and in the last 50 years it has been on males. Can you imagine? We are physiologically different. We have different plumbing. We have babies. We nurture. We feed babies. We are different.

In the above quote, broad medicalized concepts of reductionism and atomization noted by media scholars (Clarke & van Amerom, 2008) were drawn upon to position women as deviant in developing atypical risk profiles, constructed all women’s experiences within maternal requirements, and erased diversity in life experience to cater to one demographic at risk (i.e., child-bearing mothers). In focussing on risk factors over which women have limited control (i.e., pregnancy complications), the works of the WHA and affiliated professionals were situated at the crux of achieving health equity for women’s gendered risk as women’s risk was systematically positioned against men’s risk profiles (Clarke et al., 2007; Miller & Kollauf, 2002). When interpreted against economic and political disparities, women participants in other studies reported making sense of their CVD risk and health management fluidly from their vantage points of individuals from particular race, ethnic, socio-economic, education, and other complex historical backgrounds (Conron et al., 2010; Tindall & Vardemann-Tinder, 2011; Vardeman-Winter & Tindall, 2010). Such diversity in norms and values that influence expression of one’s social identity and health-related behaviours were lost in favor of narrowing down already marginalized identities from public health messaging (Collins & Rocco, 2014; Conron et al., 2010). Similarities in broader notions may be drawn between the WHA Cities and

Communities with Heart Initiative (CCHI) Nashville Facebook data and Pink Ribbon campaign events studied by other researchers as both prioritized the health of women from privileged socio-economic and education backgrounds while portraying women as victims of the medical industry (Clark et al., 2016; Clark et al., 2007; Gonsalves et al., 2015).

Despite the WHA noting in Facebook posts that a majority of Nashville residents lack access to risk reduction as a result of their minority backgrounds which contributed to high incidences of risk factors, four out of five of the CCHI program components catered to women from high income levels, education and political power, with a medicalized focus on maternal identities (i.e., employees of Nashville hospitals and health systems, municipal workers at the Office of the Mayor, Tennessee State University staff and students, and clinical studies on pregnant women). This illustration was noted in a link posted February 27, 2017, to a WHA article entitled “A first-of-its-kind effort aims to stop heart disease and stroke among women in Nashville” in which various institutions in power (e.g., the Office of Mayor Megan Barry and the Metro Public Health Department of Nashville) were credited for the paternalistic efforts to “stop women in Nashville from needlessly suffering and dying from cardiovascular disease”. Thus, in WHA efforts to reduce women’s disparities from a medicalized perspective that ultimately benefitted cross-industry collaborations and public donations, demographic disparities experienced by women from lower socio-economic backgrounds and from groups with less social power were excluded in the construction of women at CVD risk (Gonsalves et al., 2015; Zoller, 2017). This finding links to health inequity ideologies that socio-economically disadvantaged women’s health are not an organizational priority (Lupton, 2016, 2014) by providing context to how digital cardiovascular health promotion exacerbates socially marginalized demographics. The meanings attached to the WHA within the discourse of

achieving health equity for women were further worked up by rhetorical strategies that constructed CVD as an intrusive force, a rogue, and a silent killer (Rock, 2005). Feminine ideals of providing support to loved ones (Clark et al., 2016; Gonsalves et al., 2015) extended beyond their immediate family to the broader community when participating in WHA “awareness” spreading campaigns was discussed as the impetus for which women who lost loved ones should seek retribution for suffering and death by preventing others from experiencing heartbreak related to women’s deaths. The legacies of mothers who did not survive acute cardiac events were meaningful sources of inspiration to devote oneself to the humanitarian cause of lending their social platform/voice as a form of honor and remembrance. Daughters who lost their mothers to CVD or watched them recover described devoting their careers (research, medical, and nursing careers) and free time to organizing and volunteering at campaign events and providing care, supporting women’s identities as nurturers (Clark et al., 2016; Gonsalves et al., 2015).

This finding extends current literature about risk experienced by selfless mothers (Clarke et al., 2016) by providing context to how CVD impacts mothers’ family members, providing a form of continuation of caregiving roles for previous recipients of such care. These ideological traits for the public contributed particular meanings to the discourse of achieving women’s cardiovascular health equity by positioning women with some agency in resisting identification with roles as victims of otherwise inescapable fates while taking focus away from dependency on the WHA to address inequities by reducing mortality (Miller & Kollauf, 2002; Rock, 2005). As demonstrated below in a quotation by Shai Wilkins (a Black celebrity figure and health professional) provided to Facebook users on February 7, 2017, her mother’s recovery from an acute cardiac event drove her decisions to become an intensive care registered nurse, choose

CVD as her modeling platform, and provide children with play activities to encourage healthy lifestyles:

LaQuitta “Shai” Wilkins, BSN, RN. Miss Black Alabama USA 2016, registered pediatric nurse, the American Heart Association volunteer. As a health professional and pageant winner, Shai Wilkins has been a leader in raising awareness of heart health. In eighth grade, Wilkins watched her mother have a heart attack. Her mom's recovery turned out to be a formative event for Wilkins, too. She went on to become an intensive care RN. In 2015 Wilkins won the title of Miss Black Alabama USA, a state that ranks high in rates of obese individuals as well as deaths from heart disease. Wilkins chose “The Heart of the Matter” as her platform, and then made it her mission to bring awareness to communities about heart disease, diabetes and hypertension. She frequently gives talks at events and volunteers at Heart Walk events, the American Heart Association's fundraiser. This year, she created Color Me Healthy and Active, a coloring book filled with illustrations of fruits and vegetables. It encourages kids to make healthy food choices, a key way of nourishing the next generation of healthy hearts.

The use of the contextualization of Wilkins’ mother’s recovery to raise awareness of women’s leading cause of death, risk factors such as obesity, and risk reducing strategies created potential space for Facebook users to engage with restitution from personalized risk, which was not noted in prior media portrayals. Critical media scholars have problematized the limiting of CVD experiences to acute cardiac events without information about how risk may be reduced, through prior media focus on acute events with fear-based appeal, which resulted in denial of risk and disengagement from healthy behaviours (Gonsalves et al., 2015; O’Keefe & Jensen, 2007; Ruiter et al., 2001). Within this discourse, this discursive strategy shows that notions of

achieving health equity were also tied to fundraising to support WHA activities, moral obligations of passing on health-related knowledge to community members and children, and using one's social power and life experiences to reduce women's health inequities (Farmer et al., 2009; Gonsalves et al., 2015).

The discourse of health equity was further constituted by using a storyline within which social determinants of CVD risk by marginalized women were made known in first-person accounts and user comments. This discursive strategy of achieving cardiovascular health for marginalized women's voices within the equity discourse involved challenging corporate control in maintaining unhealthy behaviors and positioning women as victims of an unjust political and medical system, supporting activist social behavior aimed at resisting or reforming corporate influence on health (Zoller, 2017). The portrayal of corporate resistance adds to a growing body of literature systematically investigating the ways in which health activism politicizes power relations by dominant social groups (i.e., corporations) to influence public risk exposure and choices (Lupton, 1994; Zoller, 2017). In this study, women's CVD risk was discussed in terms of issues of health insurance coverage which prevented certain groups of U.S. women from receiving urgent and timely medical care, and the targeting of individuals from LGBTTQ and lower socio-economic backgrounds by the tobacco industry. This opportunity for resistance challenged historical and current taken-for-granted notions that women's CVD is a disease of affluence and limited to White, heterosexual women (Clark et al., 2016; Clarke et al., 2007; Gonsalves et al., 2015). Re-positioning CVD as one that disproportionately affects minority women reflected the reality of which demographics of women are at greatest risk which contradicted dominant ideologies of a "rich man's disease" (Clarke et al., 2007; Gonsalves et al., 2015; Lockyer & Bury, 2002). In turn, this is linked to health equity in that women were using

their personal narratives to draw attention to historical and political injustices that institutionally increased women's risk of CVD, thus making explicit the social contexts within which women's health inequities occur and are perpetuated (Norris et al., 2016). The subject position of the health activist is discussed later in terms of the implications for social action, health-related behaviors, norms and expectations afforded within the discourse of health equity.

7.2.2 **Discourse of healthism**

A discourse of healthism was one in which responsibility for cardiovascular health maintenance and disease risk reduction positioned women at risk as active health seekers through individual responsibility, self-governance, and self-surveillance (Cheek, 2008; Gibson, 2015; McGannon et al., 2016). Within the concept of neo-liberal healthism, the roles of medical professionals are to enable and facilitate risk reduction within women's means versus policing their behaviours and providing them with "cures", demonstrating a shift away from government support and patriarchal physician-patient relationships (Cheek, 2008; Gibson, 2015). Women are positioned as experts of their own bodies, consumers of medical health care, and responsible for engaging in healthy behaviours through self-care practices such as physical activity and diet (Gibson, 2015).

A discourse of healthism was one in which the onus for risk reduction in the WHA Facebook data was constructed through acts by women at CVD risk themselves, but which ultimately constructed a particular version of which women were at risk, how health could be maintained, and how women were held accountable for their CVD. In particular, stories provided a two-dimensional view on portraying which demographics of women are at greatest risk by drawing on social categories of age, employment, education, and gender roles. The first dimension or profile for women at risk comprised older women who were in high social and

political standing and whose health maintenance was positioned as a required stepping stone to ensuring their families wellbeing (Clarke et al., 2007; Gonsalves et al., 2015). Further ignoring the social determinants that contribute towards cardiovascular health (Norris et al., 2016), this group of women were portrayed on Facebook as reducing their risk through acts that implied that all women have access to expensive lifestyle behaviours (Clarke & van Amerom, 2008; Gonsalves et al., 2015). In the context of current media understanding that women at risk have access to supportive networks, women's social networks comprised educated and influential entertainment and medical industry leaders (Fotiadou et al., 2014; Gonsalves et al., 2015).

Additionally, social networks held close ties with women's immediate family (husbands and children) and collectively held women accountable for receiving health screens, promoting a heteronormative reality for health maintenance (Clarke et al., 2007; Fotiadou et al., 2014; Park & Reber, 2010). Similar to past media portrayals and research reports of limited awareness of their risk, women were portrayed as dedicated to their other life roles while ignorant/unaware about their CVD risk (Bailey Merz et al., 2017; Clarke et al., 2007). In comparison to the discourse of achieving health equity, this discursive strategy was used in the discourse of healthism with different meanings. Specifically, women's awareness of personal risk contextualized by heteronormative ideals (Clark et al., 2016; Gonsalves et al., 2015) were constructed within women's means and as a necessary component of self-care and self-surveillance achievable by women who were active agents in maintaining their health. The following quotation from a video posted on February 9, 2017, illustrates how 60 year old news anchor Katie Couric was positioned within her roles as mother, wife, and friend of WHA co-founder Streisand:

People aren't really sure what they should be doing when it comes to monitoring their heart health. So, I decided to come here to the Barbra Streisand Women's Heart Centre at

Cedars Sinai and find out because everyone I know wants me to get my heart checked; my daughters, my husband, even Barbra herself.

In the segment of the video that follows the foregoing quotation by Couric, Couric is seen engaging in a face-to-face conversation with Streisand in which Streisand articulates her desire for one particular woman - Couric - to receive health screens for CVD. Couric then walks into the check-in desk at Streisand's Heart Centre at Cedars Sinai where she asks for Dr. Bairey Merz. Another illustration that contextualizes risk of women in high social standing within their roles in families includes the following text from 2017 Red Dress Award honoree Dr. Janine Clayton (Associate Director for research on women's health at the NIH and Director of the Office of Research on Women's Health): "Her Top Health Tip: 'Listen to your body. See the doctor. Ask for help. Our families rely on us, but we can't help if we're not taking care of ourselves.'" Similarly, linked to a February 27, 2017 post, 50 year old country music singer Martina McBride was noted as stating: "We all are busy, but we must remember to focus on taking care of ourselves. For me, it's important to set a positive example for my three daughters." In Couric's, Clayton's, and McBride's personalized messages about women's CVD, a picture is painted of superwomen who attend to highly demanding employment duties while simultaneously juggling the roles of doting caregivers and humanitarian speakers (Clark et al., 2016; Gonsalves et al., 2015; Jette, 2006; MacGannon et al., 2012). Such positioning is only beneficial to a particular sub-set of women in this storyline as women with numerous social roles/duties have been reported to demonstrate increased risk (Clark et al., 2016; Terrill et al., 2012). On the other hand, the highlighted roles of industry leaders such as Couric and Clayton overlook, and potentially undervalue, employment statuses of diverse female populations (e.g., women who are unemployed or those who work in general labor and retail positions), whose

first-hand messages were absent in WHA Facebook posts.

The other dominant profile for women at CVD risk comprised those at younger ages (i.e., in their 20s), whose bodies could benefit most from lifestyle changes and early screens, aligned with medical research which indicated that risk factor development begins from the age of 15 years (McMahan et al., 2008; Robertson, 2001; Zieske et al., 2005). This profile contributed to the discourse of healthism meanings by contextualizing self-responsibility and morality in risk reduction within the social categories of this specific age group and women's roles as university students (Gonsalves et al., 2015). In order to meet its goal to "educate young women about heart disease", the WHA partnered with universities such as the Ohio State University and Tennessee State University, to provide free health screens and use sports events as a platform to raise awareness. While young women's risk reduction was also positioned as a shared, group experience (Fotiadou et al., 2014), this risk reduction meanings was in contrast to older women's positioning within social networks as younger women were less dependent on other social agents to instruct them to receive health screens or supervise their behaviors.

This finding adds to current critical literature about the media context behind how the social category of women's ages was used in this discourse to promote certain health identities (i.e., medical consumerism for older women) versus others (i.e., greater personal accountability for younger women) (Gibson et al., 2105). Younger women were agents of social and behavioral change within their networks and used this power to collectively manage their cardiovascular health, as demonstrated in the following quotations from a U.S. News article posted on February 24, 2017, and a WHA video posted on February 3, 2017, respectively:

It's important for women in their 20s and 30s to make decisions *now* that are good for their hearts – and to encourage their friends, sisters, co-workers and colleagues to do the

same. Strong female friendships empower us, build us up and create support networks that help keep us healthy. We often look out for the women in our lives and know that they'll look out for us – and this includes talking to each other about our health, and our risks for a disease that will kill 1 in every 3 of us. The good news is that 80 percent of heart disease and stroke can be prevented.

And,

What we do today will determine the chronic disease that develops later on in life. The time you have now is what you invest in your health because when you get to that point or stage when you're older and you haven't put in the investment kind of like insurance, you can't get it when you need it. ...Be a change agent for your families, for your Moms, for your grandmothers, for your sisters, because you want them to be around for a really long time.

Whereas the WHA created this social positioning for women's identities with agency and capacity in effecting behavioral changes within a discourse of healthism, this creation of agency was limited to younger women and not observed in user comments. All meanings in user comments reflected ideologies of dependency on medical experts drawn upon in traditional media sources that supported the foregoing discourse of achieving health equity, as demonstrated by data illustrations in the prior discourse (e.g., desire to be re-diagnosed by WHA Media Director Dr. Bairey Merz despite receiving treatment from other medical specialists) (Clarke et al., 2007; Gonsalves et al., 2015). As demonstrated in the foregoing illustrations, within a discourse of healthism that primarily holds people responsible for managing their health, younger women were held accountable for their own health and the health of their family members and friends. Another difference between profiles for older and younger women at CVD

risk within the discourse of healthism was the social construction of diversity in younger women's race/ethnic and social backgrounds. For example, in a link posted February 23, 2017, Ohio State College nursing students appeared to belong to different racial groups (e.g., White, Black, South Asian, East Asian, Hispanic) and discussed their risk independent of heteronormative ideals (e.g., positioning of their identities exclusive of social roles as girlfriends/wives or mothers). Instead of a medical frame of reference, younger women's risk reduction was characterised by neo-liberal acts of self-surveillance and personal responsibility in gaining awareness of risk factors and scheduling time for established risk reducing behaviours within most women's means (e.g., moving more, avoiding cigarette smoking and vaping, limiting alcohol consumption) (Stampfer et al., 2000).

A storyline that positioned women's acts of healthism when obtaining urgent medical care and managing risk factors involved the promotion of particular health-related behaviours during interactions with medical personnel not endorsed or affiliated with the WHA. Specifically, these behaviours related to women's roles during acute cardiac events based on personal and social characteristics, and competency of reliable physicians and specialists (Clarke & van Amerom, 2008; Gonsalves et al., 2015). In positioning the WHA medical team as medically superior and more powerful, Bairey Merz (WHA Scientific Advisor) problematized services, knowledge, and clinical decision-making capacities of physicians, nurses, and paramedics to construct women's agency as inferior in normative social order, as illustrated below:

I have been known to tell women to tell them that you're having chest pain when you get to the emergency room even if it feels like stomach upset or shortness of breath because they will respond to chest pain. That is the male standard that the paramedics, the nurses,

and the doctors have all been trained to respond to. ... In our Women's Heart Alliance survey, we surveyed cardiologists as well as primary care physicians. ...And the biggest knowledge gaps were in these primary care physicians. They acknowledged, a majority said that they understood that women and men could present differently with their heart disease and yet they did not acknowledge, they did not believe that women and men's heart disease was actually different.

When women's identities were contextualized with such fearful interactions with the very gatekeepers of their cardiovascular health, implications for health-related behaviours included avoidance of seeking urgent care for acute events and further disengagement from risk reduction (Berry & Latimer-Cheung, 2013; Gonsalves et al., 2015). Current literature about media portrayals of women's breast cancer includes the notion that identities were created for empowered, medical consumers for whom obtaining medical care was positioned as a choice and a health-promoting act of neo-liberal healthism (Gibson et al., 2015). Women's identities as activated medical consumers within the discourse of healthism in the WHA Facebook data were further contextualized as having to embellish their stories with inaccurate reports of acute cardiac symptoms (i.e., chest pain) to address patient-doctor power differentials and inadequate knowledge of medical professionals. Further noted within discourses of healthism in media messages about health, the roles of medical experts are to share knowledge with the public, and to enable the public to make informed decisions about their health as engaged health consumerists (Cheek, 2008). A novel finding from this data was the consumption of the WHA messages through a lens that filtered for sex and gender which favoured female physicians and specialists, portrayed male physicians as unknowing and uncompassionate, and positioned women as having the capacity to discern between the two. In the following illustrations from

comments posted on February 18, 2017, and February 19, 2017, respectively, users provided further context to how their medical experiences were shaped by power relations and institutional negligence:

Male doctors do NOT [sic] listen to their female patients. They also do not believe their female patients when they complain, figuring they are either having a panic attack, or the old standby, GERD. Make your doctor listen to you, and take your complaints seriously, or go get a female doc!

And,

Don't allow a doctor to just dismiss your symptoms either. I was hospitalized for some issues I was having with my heart. When I was discharged the 1st cardiologist I was referred to dismissed my symptoms as indigestion even though my EKG was not normal and my primary care doctor had requested a stress test. He refused to do the stress test because he said "it wasn't necessary" and put me on a 24 hour monitor. I asked my primary for a new cardiologist and he referred me to a woman who has such compassion and shows such care. She put me on a 30 day monitor which showed my heart going out of rhythm and raced to 120bpm, and she has scheduled further testing. Oh, by the way the 1st cardiologist didn't seem concerned that heart disease, hypertension and stroke are part of my family's medical history. Know your body and advocate for yourself, your life could depend on it.

Echoing literature about challenging medical interactions, the meanings in these user comments drew on broader experiences of women who reported historical marginalization and victimization by medical professionals because of their race and ethnic backgrounds, which made them fearful of current medical interactions (Tindall & Vardeman-Winter, 2011;

Vardeman-Winter & Tindall, 2010). As noted within a discourse of equity, while Facebook users made their marginalized voices heard in (re)producing their cultural identities in consuming WHA health promotion messages, these run parallel and further distinguish their realities to that of the affluent, powerful superwoman who is positioned as ultimately benefiting from the WHA messages (Clark et al., 2016). Within the discourse of healthism, construction of women's health identities with maintaining multiple social roles may result in further blaming women for developing CVD risk as a weakness in moral character (Clark et al., 2016; McGannon et al., 2016), particularly for those women who do not identify with the superwoman feminine profile (i.e., women who are not wives, mothers, leading professionals).

Further, the latter demographic of women were described as being at ease, positive, and confident about their diagnosis and prognosis by WHA experts, whereas users who not have access to WHA services (e.g., those by Bairey Merz) reported complex negative emotions about their CVD risk (Clark et al., 2016). As shown in the second illustration, the plotline in the user's story changed after she received consultations with a female cardiologist, which led her to take on a similar social positioning as that of recipients of WHA-affiliated professionals. This change in positioning is not completed by a fairy-tale ending of recovery and health restoration, but rather, reinforced the ideology that women must depend on a particular type of specialist for further testing to manage their health and bodies, to support the ideals of good medical consumerists within the discourse of healthism (Clarke, 2010; Clarke et al., 2007; Gonsalves et al., 2015).

7.2.3 Subject position one – Altruistic fighters

Aligned with the WHA campaign title Fight the Ladykiller™, WHA personnel, entertainment celebrities, and political figures were constructed within the discourse of health

equity as altruistic fighters who deliver health care services, conduct research, educate women and practitioners about women's leading cause of death, and serve as role models through their own lifestyles. Altruistic fights took up particular meanings within the discourse of health equity which included the positioning of WHA leaders with personal traits of being passionate about changing the status quo of women's cardiovascular health disparities, and volunteering time and effort to sharing their medical, political, and celebrity platform for women's health needs. Senior female WHA leaders were portrayed as graciously lending their personal time to "tirelessly" fighting for women's cardiovascular health, while garnering prestigious accolades for their efforts (Clarke, 2010, 1992; Clarke & Binns, 2006; Savoie et al., 1999; Wharf Higgins et al., 2006;). In contrast to a discourse of healthism which emphasized women's personal responsibility, these meanings drew on health ideologies that position all aspects of women's CVD risk reduction as the primary responsibility of expert gatekeepers, and promoted a narrow, medicalized view for making sense of CVD risk (Clarke, 2010; Gonsalves et al., 2015). When solving the scientific challenges posed by women's pathologised bodies, superior research expertise of WHA leaders and use of innovative experimental technologies were positioned as the ultimate channel through which women's cardiovascular health disparities could be addressed (Gonsalves et al., 2015).

In constructing medical and social responsibilities of altruistic fighters within the discourse of health equity, women's bodies were positioned as chattels for scientific discovery and deviant in comparison to the male standard/frame of reference for CVD risk (Jette, 2011; Ussher, 2006; Vertinsky, 1998). In the following illustration, linked to Facebook users on February 19, 2017, Bairey Merz discussed the novel clinical studies aimed to reduce women's CVD risk by focusing on pregnancy, childbirth and menstruation, and contextualized by the

WHA intention to provide women with novel medicalized means to prevent and treat their CVD risk:

...we are investigating adverse pregnancy outcomes, including gestational hypertension, pre-eclampsia, eclampsia, and pre-term delivery. These impact 20% of pregnancies and predict early heart disease in younger women. We're also studying anovulatory cycling. This is where young women are not having regular menstrual periods and have very low estrogen levels, which can lead to premature heart disease. These areas are important to study because they are prevalent in young women and easily recognized. This means prevention and treatments could be widespread and feasible.

An additional way that the subject position of altruistic fighters was promoted was through the discourse of healthism in which women's agency in seeking medical care was sought, but ultimately limited to those provided by WHA leader at affiliated institutions. The effects of these meanings and ideologies for women's health-related behaviors limited their potential for engaging in risk reducing behaviors within their means, and resulted in lack of trust in the physicians whose services to which most women have access (Gonsalves et al., 2015). The following is shown in a user comment to a WHA post dated February 19, 2017, where she stated her desire to receive medical advice from Bairey Merz despite reporting having received a medical diagnosis of heart failure and being scheduled for surgery:

I would love to see her as I am a heart failure patient with horrible heart disease and having 23% of my heart removed on my lower left lobe. I wonder how long it takes to get a [sic] appointment with her.

Such meanings within the discourse of healthism downplayed and erased the benefits of existing medical relationships, care, and treatment in favour of those provided (yet largely

inaccessible) by WHA leaders, which intersected with the discourse of equity through which the WHA positioned their work as superior in comparison to other medical services. The subject position of altruistic fighters further positioned women's roles in acts of healthism with moral imperatives of possessing the scientific knowledge in seeking out new medical knowledge to choose medical professionals whose health perspectives were aligned with emerging knowledge (Cheek, 2008; Moller & Kollauf, 2002; Wharf Higgins et al., 2006). While some demographics of women at risk may possess such capacity, women without high levels of education or time to keep abreast of their health risks were positioned as powerless in effectively embodying the roles of good medical consumerists (Gonsalves et al., 2015). The latter group of women then constituted the demographic problematized in the discourse of equity as in need of paternalistic medical and political control in disparity reduction as they did not have the capacity to understand and manage their risk as good medical consumers in the discourse of healthism.

7.2.4 Subject position two – Health activists

The subject position of health activists was created for Facebook users as one of being empowered at effecting community changes by increasing women's knowledge of their CVD risk, and supporting broader structural changes in advocating for increased clinical trials and reducing the influence of corporate groups that promote unhealthy lifestyles (Zoller, 2017). The roles for health activists were created for medical professionals and scientific researchers in the discourse of achieving health equity, and for women Facebook users in the discourse of healthism to address the general lack of CVD awareness by U.S. women and to improve medical intervention available for women at risk. An illustration of the subject position of the health activist in the discourse of health equity is seen in the WHA link titled "Take the pledge" provided to readers on February 1, 3, 9, and 16, 2017, in which the following quotations were

paired with an image of clenched fists which represented strength, passion, and the shape of the heart:

One in two women will have heart disease in their lifetime. One in three women will die from it. We need to fight back. You can stop this killer. ...Tell five friends that heart disease and stroke are women's #1 killer. Advocate for further research on heart disease in women.

As noted, the discourse of health equity also provided opportunities to make known the health-related realities of women of lower socio-economic backgrounds and the limited resources with which they could make sense of their cardiovascular health, which was a novel finding given past media's focus on affluent, consumerist women (Clarke et al., 2007; Gonsalves et al., 2015; Gonsalves et al., 2017a, Gonsalves, McGannon, & Schinke, 2017b). A user contextualized women's CVD with health care legislature that privileged certain demographics and suggested a disconnection between the demographic to whom WHA catered and the reality of those at greatest risk, as shown in the February 18, 2017 post that follows: "Our house keeper died a few days after I watched this. She didn't have health care insurance." This comment was posted in response to a WHA post about entertainment celebrities who discussed their heart health from their social standing of privilege with the resources to obtain urgent medical care, consistent with current literature on media stories of women at CVD risk (Clarke et al., 2007; Compton, 2006; Gonsalves et al., 2015).

The discourse of healthism further positioned women as powerful agents of corporate change whose voices must be heard in demanding changes at the structural level to affect how risk factors and unhealthy lifestyles were promoted. From a critical health communication perspective, health activism refers to the act of challenging structural and economic power

relationships that systematically meet the interests of dominant corporate groups while impeding health promotion, resulting in corporate-generated risk for disease (Zoller, 2017).

An example of this subject position for women is seen in a February 24, 2017, link to an organization entitled The Truth, committed to creating awareness about the effects of commercial tobacco misuse by unmasking the meanings behind tobacco company advertisements (The Truth, 2018). A video entitled “Exploited | Pride | truth” catered to young adults with YouTube videographers Shannon Beveridge and Jazz Jennings, LGBTTTQ advocates, sharing their messages of how commercial tobacco advertisements problematically targeted the LGBTTTQ community, both historically and currently. Tobacco companies were placed in the same inferior power position as non-endorsed WHA health institutions, politicizing women’s CVD within corporate marketing agendas, similar to advocating for medical attention from unsympathetic physicians noted in women’s magazines (Gonsalves et al., 2015; Roy, 2008). The female LGBTTTQ health advocates were positioned as agents of cultural health maintenance in protecting the undisclosed meanings they ascribed to the term “pride” to (re)present rhetorical strategies of tobacco industries used to advertise commercial tobacco products. This portrayal is expands the literature findings by the inclusion of LGBTTTQ women as being at risk for CVD and politicizing women’s cardiovascular health within corporate power relationships, previously limited to individual responsibility and medical dependency by heteronormative wives and mothers (Clarke et al., 2007).

7.2.5 Subject position three – Compliant patients and consumers

The subject position of compliant patients and consumers was constructed within the discourse of health equity, which constructed women’s roles in their cardiovascular health as linked to notions of obediently supporting ideologies of gatekeeper control (Gonsalves et al.,

2015; Miller & Kollauf, 2002; Roy, 2008). Meanings attached to being compliant patients constructed the subject positions of altruistic fighters as health care services and research conducted by WHA leaders were idealized in comparison to inferior health care offered by non-endorsed physicians within a discourse of health equity. Women's identities, social realities, and diversity in risk profiles were detached from what they had to offer to WHA leaders (i.e., their physical bodies) in order to aid the work that these leaders perform and from which they financially and professionally benefit. This positioning is shown by WHA calls for volunteer participation in clinical research trials and women's comments about these experiences as a research subject:

I have participated in two studies at Streisand's center in the hopes of identifying non-invasive ways to diagnose heart attack symptoms in women. They administer a drug that makes you feel like you are having a heart attack while in a CT scanner.

Women's prompt willingness to participate in these experimental studies, and the construction of participation as a required, humanitarian calling was positioned as a means by which new best practices may better inform uncompassionate non-endorsed and non-affiliated male physicians (Gonsalves et al., 2015). Women's agency as active health seekers in the discourse of healthism thus provided specific meanings for women's consumerism of health services by limiting these health behaviours to seeking consultations with WHA professionals who were women and demonstrated moral characteristics of compassion and empathy. Within the discourse of achieving health equity, women's subject position as compliant patients was contextualized by complete dependency on researchers by transferring personal power over their bodies to experimental manipulation by WHA leaders through their consent for participating in clinical research trials (Clarke et al., 2007, 2006; Clarke & van Amerom, 2008). The following

user comment in response to a WHA post dated February 18, 2017, illustrates the notion that the best candidates for altruistic fighters for women's health are women leaders. In the following case, the user comment was in reply to WHA co-founder Streisand's fight for gender equality: "Good to see women helping women". As noted and illustrated earlier in this Chapter, women at CVD risk were positioned as obtaining a higher level of care from female health providers whose altruistic identities were contextualized with similar compassion as WHA leaders.

While voluntary participation in clinical studies may provide women with a sense of fulfillment in contributing to the greater cause of women's cardiovascular health equity, these efforts were not contextualized by established guidelines for symptom identification or established risk reduction guidelines. Problematic outcomes of such interactions with the medical community for personal risk reduction and for the advancement of scientific inquiry without immediate health benefits for study participation may have included hypervigilance of potential symptoms, a general distrust and fear of male doctors, and limited understanding of side-effects of novel, experimental pharmaceutical testing (Clarke et al., 2007). The implications of these portrayals are that women may not understand how to go about seeking urgent medical care, particularly those without scientific knowledge/education and those of lower socio-economic status backgrounds without the financial means to access services (Clark et al., 2016; Gonsalves et al., 2015).

Within the discourse of health equity, the subject position of the compliant patients was reinforced with the additional dimension of consumerism cosmetics as part of the #Lovein3Words campaign for which the WHA partnered with cosmetics company Revlon (Revlon, 2017). The #Lovein3Words WHA messages promoted undisclosed advocacy efforts by the WHA towards a better scientific understanding of female cardiovascular systems, thus also

reinforcing the altruistic fighter subject position. When constructed as a form of empowerment for women at risk of CVD, the foregoing rhetorical strategy ultimately promoted a culture of consumerism with Revlon branding goals listed as doubling product sales on Amazon, obtaining positive consumer perceptions of the brand by younger demographics, and achieving brand equity and cultural relevance (Gonsalves et al., 2015; Revlon, 2017). Such portrayals have been shown to be problematic because women without the financial means or desire to pursue this form of femininity tied to heteronormative appeal and appearances are excluded from public health promotion (Clark et al., 2016; Gonsalves et al., 2015).

Further, positioning women's health as a humanitarian cause with the promotion of merchandise (re)produces a narrow version of what it means to be diagnosed and manage CVD risk, limited to tidy lifestyles of privilege (Gonsalves et al., 2015). In turn, this dominant viewpoint overpowers more advantageous discursive resources with which women may make sense of their risk such as complexity in human emotion and diversity in motivations for risk reduction (Clark et al., 2016). More appropriate health messages to women at risk may include information of culturally-relevant resources for knowledge exchange surrounding heart healthy diets for particular budgets, opportunities for physical activity in their built environments, personal goal setting, self-monitoring of goals, and meaningful contexts for behaviour performance within community networks (Brown et al., 2017). Additionally, WHA portrayals of the archetype for U.S. women at risk may be more representative of community members, with visual images and video narratives of women's lived experiences and behaviour modifications, from a variety of backgrounds in terms of gender roles, race, and ethnicities.

In summary, the meanings surrounding women's CVD were interpreted through discourses of achieving health equity and healthism, meanings of which constructed the

following subject positions; altruistic fighters, health activists, and compliant patients and consumers. In the next Chapter, I discuss the CDA findings of the #MoreMoments Twitter data.

Chapter 8

Study four: A critical discourse analysis of Twitter user consumption of the term

“#MoreMoments”

In this Chapter, I present the research questions that guided the fourth study, followed by the results and discussion of findings.

8.1 Research questions

The fourth study used CDA to explore Twitter user consumption of the term #MoreMoments, with which the HSFC encouraged the public to use in their social media posts to contextualize what CVD death prevention and living a life of risk reduction meant to them. The aim of this study was to identify central discourses and how these were used to construct gendered meanings surrounding life, cardiovascular health, and fatalities, which made particular health-related identities/subject positions, and behavioural practices available for social agents. The following two research questions guided the study: (1) What discourses are used by Twitter users to construct the intersection of death and survival to generate meanings for “more moments” and subject positions within these discourses? And (2) What are the implications of the discursive meanings identified for gendered health-related identities of those at CVD risk?

8.2 Results and discussion

This section contains findings from the CDA of the #MoreMoments Twitter data which constructed CVD meanings for men and women within a discourse of tragedy and loss, and a discourse of life and health, which further constructed the gendered subject positions of visionary leaders, selfless humanitarians, and successful survivors.

8.2.1 Discourse of tragedy and loss

In the #MoreMoments data, a discourse of tragedy and loss was one in which CVD was

portrayed through the tragedy of death as experienced by loved ones, and the loss of anticipated futures and prior family relationships for survivors and loved ones. Within this discourse, Twitter data and linked websites drew on particular perceptions of experiences, and identities of those who died or experienced near fatal events, to create meanings of an inescapable fate to ultimately drive HSFC donations (Farmer et al., 2009; Hunt, 2015). In particular, donations to the HSFC were promoted to develop novel and innovative diagnostic and treatment alternatives (Clarke, 2010; Clarke et al., 2007) for individuals whose cardiovascular health did not benefit from engaging in neo-liberal acts of healthism such as regular physical activity and healthy diets. In these instances, individuals' survival from near death experiences due to heart attacks and strokes were positioned as fortunate strokes of luck for which they received timely treatment made available by HSFC-funded research and education.

This finding is aligned with media portrayals of the sensationalization of the medical, pharmaceutical, and research community to achieve corporate credibility and funding to promote dependency, at the cost of limiting agency in personal risk reduction (Farmer et al., 2009; Gonsalves et al., 2017; Zoller, 2017). In this discourse, the roles of political, medical, and pharmaceutical professionals were constructed as visionary leaders to drive novel and innovative technologies which would prevent future CVD fatalities through public donations (Clarke et al., 2007), as demonstrated in the following data items: “Congratulations [name withheld] on your appointment to CEO...! We’re thrilled to continue working with you to bring Canadians #MoreMoments”, and “As a canvasser, I am fundraising for @Heart and Stroke to help fund the next medical breakthrough and create #MoreMoments for all Canadians...”.

The request for donations and praise for medical and political power shifts within health and research institutions within the discourse of tragedy and loss supported the notion that

institutional changes were a requirement to prevent CVD versus personal lifestyle choices by those at risk (Gollust & Lantz, 2009; Wharf Higgins et al., 2006). The following quotation illustrates this particular consumption of the HSFC term “More Moments” in absolute terms of survival and death, and was provided by the latter Twitter user through a link:

I'm canvassing to create more survivors. All of the money I raise will go to the Heart and Stroke Foundation, where they'll use it to develop life-saving treatments that bring hope to heart disease and stroke patients. In the last year alone, the Heart and Stroke Foundation has helped create 165,000 survivors of heart disease and stroke. Please help me reach my fundraising goal by making a donation today. It's only with your help that we can continue to fund this vital research, and return more survivors home to their loved ones.

The personal challenges and complexity of emotions which may be associated with recovering from acute cardiac events and adjustment to new lives was noted for survivors and loved ones, aligned with findings from Blog data by Fotiadou et al. (2014) and absent from prior HSFC media (Clark et al., 2016). Particularly, surviving acute cardiac events was characterized by having to re-negotiate one's identity and physical functioning in a foreign body as demonstrated by the following quotations: “You just have to do things differently... you have to reengineer a lot of things”, and “... this was new territory for [name withheld]. ‘It was frustrating’...It took over a year for [name withheld] to feel confident and comfortable...”. Individuals whose loved ones sustained fatal cardiac events were positioned as having to make new meaning for their lives, as opposed to any links for continuation of their social identities, as demonstrated by the following quotations: “... learning to live without [name withheld] and becoming ‘functioning people’ has been a long, painful road”, “I'm not the same person. I never

will be the same person as I was before. You have to completely rebuild your identity”, “To my dear Husband, Mother, Father, Grandfather..Too many letters to write..Heart attacks and strokes have sadly shaped my life.” and, “Dear @theHSF, I don’t want to be reminded of my mother’s death during the holidays. Perhaps you can find another way to bring awareness?”

Survivors were characterized with gratitude for timely efforts by loved ones and strangers in arranging urgent medical care, providing CPR, and using an automated external defibrillator (AED); a storyline which was problematized by media scholars as implying that all individuals at risk have social support on hand (Clarke et al., 2007; Gonsalves et al., 2015), and echoed by a concerned user in the following comment:

Living alone, how would you get the treatment required if you can’t make a phone call?
How do you take the aspirin that is suggested if you are paralysed? I think it would be helpful to have that info out thereally [sic]. Thank you.

A different plotline was used within the data, with stories of survivors and loved ones who engaged in education programs to protect others from experiencing similar tragedy and loss, and support programs catered to assisting survivors recover from acute cardiac events. In this plotline, a renewal of one’s sense of identity comprised the construction of new meanings for personal development and growth through building community connections which did not exist prior to sustaining cardiac events (Fotiadou et al., 2014). These activities were positioned as empowering experiences as survivors regained some control over their bodies and broken identities as they took on roles as community leaders, which is a novel finding from current literature surrounding media CVD portrayals (Compton, 2006). These program educators and facilitators further constructed their empowered identities within the context of taking ownership for public health promotion to protect others from experiencing heartbreak of losing loved ones

and providing them with future opportunities (i.e., *more moments*) to enjoy relationships and life experiences (e.g., “Losing your mom two days before the biggest event of your life.

@JoannieRochette & @TheHSF don't want anyone to miss #MoreMoments like that.”, and “If we can spare others these losses...”). A sense of prevention of fatalities at the community-level was also constructed by the portrayal of charitable acts by strangers, which narrowed all experiences of CVD (i.e., prevention, diagnosis, recovery) down to the acute cardiac event similar to past media portrayals of CVD through reductionism to promote a medical frame (Clarke & van Amerom, 2008; Fotiadou et al., 2014).

Consistent with current understanding about the media (re)presentations of demographics at greatest risk for CVD, all the individuals who sustained fatal cardiac events and those who survived were White and from wealthy backgrounds (e.g., lawyers, vacations in France, volunteering for the United Nations in E. Africa) (Clark et al., 2016; Mastin et al., 2007). Men's risk was typically positioned within caring, egalitarian, heteronormative relationships, with CVD assigned qualities of thieves (Gonsalves et al., 2015), demonstrated in the following Tweet:

Dear [name withheld], I'm sorry you got short changed on life at 49. Heart disease stole you from me and stole our life together. My husband, my protector, I wish I could have protected you. Your love was one in a million. – [name withheld] #MoreMoments

A novel finding in this study was a different storyline in which men's risks were discussed independent of spousal relationships, providing some diversity for men's identities. On the other hand, more constraining stereotypical gendered portrayals of women were evident in contrast to these portrayals of men. In this regard, all women featured who died and survived acute events were married to men, attributed their survival to care received by attentive husbands who quickly identified their wives' symptoms and phoned for urgent medical care, and were

remembered as doting mothers and grandmothers who prioritized their own health last, aligned with current literature (Clark et al., 2016; Gonsalves et al., 2015). Thus, whereas some typified gender roles and identities were drawn upon to construct CVD fatalities and survivors (e.g., married wives, mothers, and grandmothers) (Clark et al., 2016; Gonsalves et al., 2015), Twitter data provided evidence that users are drawing upon atypical gender ideologies (e.g., men's identities outside the context of heteronormative marriage). Such portrayals are problematic for both genders because they promoted social categories of normative gendered roles which were inflexible and limited gendered notions of CVD risk to the context of heteronormativity, marriage, and caregiving roles (Clark et al. 2016; Gonsalves et al., 2015, 2017a, 2017b).

8.2.2 **Discourse of life and health**

Within the discourse of life and health, Twitter users constructed cardiovascular functioning through concepts of healthism, humanitarianism, and institutional control to create particular meanings for what it means to be alive and in good cardiovascular health. "Neo-liberal healthism" refers to health ideologies that position power over health maintenance for individuals at risk and achievable through means within their control such as lifestyle behaviours and medical consumerism through self-governance and individual responsibility (Cheek, 2008; Gibson, 2015; McGannon et al., 2016). Acts of healthism were predominantly tied to corporate branding of the HSFC and affiliated organizations as powerful, yet compassionate, entities who benevolently work to save and extend lives. The ultimate goal of engaging in organized events such as Big Bike, the Manulife Ride for Heart, and Jump Rope for Heart was to raise funds for the HSFC similar to solicitations for donations noted in the discourse of tragedy and loss, and by other media scholars (Farmer et al., 2009; Hunt, 2015). The meanings associated with these events in the discourse of life and health intersected with those in the discourse of tragedy and

loss by portraying a softer, pleasantly appealing perspective of CVD fatalities and survivorship, and as a redemptive form of disease prevention, similar to breast cancer messages in the Pink Ribbon (King, 2010, 2007). However, the moral meanings ascribed to donations were contextualized by performance of established risk reducing lifestyle behaviour strategies (i.e., walking, running, biking, skipping, skiing) (Stampfer et al., 2000).

Consider the following data item which involved a bike ride with the following description: “Activities include a 5km family bike ride, a 45km bike ride, a 90km bike ride, trail walking, family fun fair, kids activity centres & games, BBQ, entertainment and sponsor activations.” This information was linked to Twitter users through the following Tweet “Tomorrow is #GianniGiro! Thank you to all those participating to help us raise funds to create #MoreMoments!.” Both the Tweet and the link contained images of men and women on bikes, interacting with children on bikes (presumably at the start line) and later surrounded by children while biking together. Images of active participation at these events further demonstrated what creating “more moments” meant to Twitter users and the ways in which others may create “more moments” in their own personal lives, which were grounded in social values of being parents and guardians (Clark et al., 2016; Gonsalves et al., 2015). Participation in these events was positioned as opportunities for caregivers/guardians to children to serve as role models to their own children and to the community at large by demonstrating their optimal cardiovascular functioning and humanitarianism.

These portrayals also reinforced moral ideals for ‘good’ citizens through philanthropic acts of health promotion, consumerism and participation in organized events to raise funds for the HSFC (Gonsalves et al., 2017b). When participating in family-friendly fundraising events, individuals were not positioned as having to negotiate roles in parenting and maintaining health

as they performed both duties simultaneously, which is in contrast to prior media portrayals and meanings within the discourse of tragedy and loss (Clark et al., 2016; Gonsalves et al., 2015). Particularly, women were portrayed as having to choose between health and parenting, and dying as a result of their inability to negotiate these dual identities both in past media findings (Clark et al., 2016; Gonsalves et al., 2106) and in the foregoing discourse of life and health. Interpreted differently, displaying simultaneous duties simplistically, with cheery dispositions for event participants, may erase or downplay structural challenges or childcare assistance that might be needed by some parents (e.g., single parents) in order to balance all family-related tasks while reinforcing two-parent heteronormative ideals (McGannon et al., 2017). Also excluded from this storyline are the identities of individuals with physical disabilities who may not have the capacity to walk, run, bike, skip, and/or ski, yet have the potential to maintain healthy lifestyles and reduce CVD risk while contributing to fundraising goals, demonstrating problematic constructions to who mattered in these campaigns (Clark et al., 2016).

Another dimension to the identities of humanitarians is provided in terms of socio-economic backgrounds framed through cultures of consumerism and affluence tied to corporate branding (Gonsalves et al., 2106; King, 2010; Zoller, 2017). Participants of the Walk and Run for Heart event were rewarded with “Thank you prizes” based on the amount of funds raised in their name which included baseball caps with the HSFC logo and gift cards for undisclosed merchandise/services, with the expectation that some individuals would raise over \$1000. In order to further position event participation with selfless humanitarian concern through financial donations, individuals were provided with the option to donate their prizes back to the HSFC to raise even more funds for research funded by the HSFC. A consumerist culture was also illustrated with ties to Roots Canada Ltd. merchandise such as limited edition toques and

bracelets for which women at risk were models, to paint a picture of concern for one's physical appearance versus cardiovascular functioning, a previously identified and problematized finding in media portrayals (Gonsalves et al., 2015; King, 2010). This particular construction of femininity based on visual appeal intersects with the meanings of power ascribed to masculinity noted in this discourse (i.e., CEO of Roots Canada Ltd.), similar to past distinctions of gender based on heteronormative power differentials and social norms (Clarke et al., 2007). These portrayals constrained social roles in gendered constructions for Canadians at CVD risk by reinforcing power differentials between men and women wherein men were ascribed institutional and personal power in effecting widespread health-related changes, whereas women provided aesthetic appeal to health promotion messages (Clarke et al., 20107; Gonsalves et al., 2015).

Aligned with meanings inherent in the discourse of tragedy and loss, one set of stories in the current discourse of life and health involved direct institutional control through gatekeeper expertise as the most appropriate means to maintain health (Clarke & Binns, 2006; Glenn et al., 2013; McGannon et al., 2016). However, the ways in which this was achieved positioned power sharing through knowledge translation and education programs to convey awareness of risk factors and symptoms, versus power maintenance facilitated through the prior discourse of tragedy and loss. Despite the shifting in some power of the expert gatekeepers to the public, these stories did not comprise knowledge exchange wherein public Twitter users shared their own strategies for risk reduction. Instead, all knowledge transfers were uni-directional and comprised HSFC personnel educating individuals about general risk and the importance of seeking urgent medical care for acute symptoms, similar to other cardiovascular health campaigns (Clark et al., 2016; Gonsalves et al., 2015, 2017a, 2017b). Such efforts from health institutions may be helpful in providing the public with information of which they might be

unaware but may constitute a form of control through paternalistic benevolence (Glenn et al., 2013; McGannon et al., 2016).

Public health promotion through upstream changes was further reinforced by direct institutional control over individuals' lifestyle choices when those at CVD risk were positioned without the capacity to heed instructions from experts within a discourse of life and health. The following Tweet and quotation from a linked article illustrates this point by making dietary health choices unavailable to the public in order to hold the HSFC accountable for health-related behaviours (Gonsalves et al., 2016, 2017): "Major [emoji] alert: a healthy diet, low in fat and artificial ingredients could save your life. #moremoments #heartsmatter #hearthealth", And

Artificial trans fat will finally be off our plates, Heart & Stroke says, nearly 12 years after the move was recommended to the federal government. Health Minister Ginette Petitpas Taylor announced Friday the final step to ban partially hydrogenated oils in all foods sold in Canada. ...Eliminating the main source of industrially produced trans fat from the food supply will help to protect the health of Canadians, Petitpas Taylor said in a statement. Canadian researchers estimate a ban could prevent 12,000 heart attacks in Canada over 20 years. ...It will apply to all foods sold in the country, including imported products and foods prepared and served in restaurants and food service establishments. Heart & Stroke said it will reduce the number of heart attacks in Canada and save lives. Heart & Stroke co-chaired a task force with Health Canada in 2006 that first recommended the ban.

Another plotline that shaped the discourse of life and health constituted "responsible" health promotion by the HSFC with which the public could maintain their own health within their own means (Lupton, 2015). These data items included making small changes for daily life to reduce stress, eat healthy, and be physically active in ways that catered to lower socio-

economic status groups (e.g., mindfulness, cooking with cans of beans, setting realistic walking goals) (Stampfer et al., 2000). While individuals appeared to belong to minority groups such as Black, South Asian, and East Asian backgrounds, absent from these identity constructions were cultural practices and norms of minority groups at greatest risk such as Indigenous Peoples and Asian diasporas (Clark et al., 2016; Edy, 2010). Thus, the HSFC and user consumption of “#MoreMoments” was limited to risk reduction through Euro-centric, mainstream ideologies of CVD risk reduction and prevention through preferences that included uni-directional knowledge transfer from paternalistic experts, further indicative of how dominant health notions associated with Whiteness were perpetuated in Canadian culture (Clark et al., 2016; Edy, 2010).

8.2.3 Subject position one - Visionary leaders

The subject position of visionary leaders was worked up in the discourse of tragedy and loss, and the discourse of life and health, to construct identities for male scientific research investigators and research administrators funded by the HSFC. In particular, the meanings ascribed to medical researchers within this discourse of tragedy and loss comprised commitment of one’s professional medical and research career to saving Canadians’ lives through their expertise in order to prevent death and extend years of living (Clarke et al., 2007). The following Tweet and quotation from the link attached to the Tweet illustrates these points:

“Congratulations to Heart & Stroke researcher David Wood on his revolutionary heart valve surgery that’s changing lives! #MoreMoments”, And the following quotation from *The Globe and Mail* news article posted October 30, 2017 and linked within the foregoing Tweet:

A Vancouver cardiologist has presented details of a revolutionary heart valve surgery to thousands of doctors from around the world and says the minimally invasive procedure will “*blow people's minds.*” Dr. David Wood led a study involving 411 patients who

underwent an operation called 3M transcatheter aortic valve replacement for treating aortic heart valve disease, at 13 centres across North America, 11 of them in Canada. *“It’s going to change, we think, not just North American, but global practice,”* Wood said Monday before presenting the study at the annual Transcatheter Cardiovascular Therapeutics conference in Denver, where 15,000 attendees had enrolled.... *“Once you start getting symptoms, 50 per cent of people are going to be dead within a year so it’s absolutely imperative that you fix that valve,”* Wood said.... [Name withheld] had the *“miracle” surgery* in 2013 at age 83 when she lived in Squamish, B.C., and became increasingly exhausted and had difficulty breathing. *“The doctor told me I was very close to death and had a couple of months only to live,”* [name withheld] said of the surgery that meant she didn’t have to have her *“whole chest bone sawed through.”*... *“The only reason [name withheld] is alive is because we’d been doing the study and we were able to use that technique for Max. That’s why he’s such an amazing story. No one had ever done it before like that.”* [Italics added for emphasis]

In the above quotation, the power ascribed to the researcher (Wood) stemmed specifically from his ability to envision and develop novel, innovative surgical techniques to provide unparalleled knowledge for surgeons worldwide (Clarke et al., 2007). Numerous discursive strategies were used to reinforce the notation that Wood’s unique vision and ability to carry his thoughts into practice single-handedly prevented the untimely deaths of numerous individuals. These strategies included positioning his expertise as superior to his peers, focusing on death as the only other outcome of non-experimental treatments, portraying experimental trials as inspirational tales, lack of information about potential side-effects experienced by study participants, glorifying the impact of the study’s findings on powerful medical figures who

attended a scientific conference, and focussing on individuals in later stages of disease progression (Clarke & Binns, 2006; Clarke et al., 2007; Clarke & van Amerom, 2008). These problematic constructions for the human body as an experimental object with researchers such as Wood positioned as saviours worked to position CVD reduction as futile, meaningless acts when CVD risk was discussed in absolute terms of life and death (Clarke et al., 2007). These meanings associated with visionary leaders were ascribed within the discourse of tragedy and loss as Wood was portrayed as saving the lives of individuals who would have experienced death by CVD, providing an alternative context with which to make meaning of advanced CVD diagnoses. These meanings intersected with those constructed within the discourse of life and health as Wood's experimental findings (and further, HSFC funds from the public) served as an example of tangible, concrete outcomes to drive further public participation in HSFC fundraising events and canvassing for the HSFC.

An additional way that the “visionary leaders” subject position was constructed was by assigning them accountability for policing the broader research community, in addition to simply managing those at risk as in the prior example. Situated in the discourse of life and health, these leaders were credited with a variety of competencies and interests such as operational experience, technical expertise, and a desire to provide service to health research programs (Clarke, 2010; Edy, 2010; Wharf Higgins et al., 2006). These leaders were constructed as the backbone for appropriate delivery of health care to enable “more moments” for public health maintenance dependent on a concerted effort of political, scientific research, and medical health industries, as illustrated in the following linked quotation from a Saskatchewan Health Research Foundation (SHRF) article posted September 8, 2017:

The focus for Mr. Odnokon and SHRF moving forward will be to continue leading

Saskatchewan into a new era of health research; engaging with the research community on how best to support and build the capacity of our researchers; collaborating with provincial stakeholders on a common vision for attaining collective impact through research; and working with government to determine how Saskatchewan's world-class research environment can best respond to a transformed health system and be leveraged into the province's innovation agenda.

In summary, the roles of visionary leaders were tied to health promotion and disease prevention through expertise of medical and research professionals with little potential for individuals at CVD risk to understand how their roles fit into corporate agenda other than serving as study participants and being informed of shifts in medical and political power (Clarke, 2010; Edy, 2010; Wharf Higgins et al., 2006). The meanings that supported the construction of visionary leaders positioned the bodies of those at CVD risk as in desperate need of "fixing", and current medical practice as ineffective and in need of transformation in order to prevent fatalities and maintain health (Jette, 2011; Ussher, 2006).

8.2.4 **Subject position two - Selfless humanitarians**

The discourses of tragedy and loss, and life and health, constructed the subject position of selfless humanitarians who were portrayed as graciously giving of their time and resources to financially support HSFC funded research, use HSFC resources to educate themselves of life-saving techniques, and valiantly administer CPR and use AEDs to prevent CVD fatalities. In contrast to traditional media portrayals which constructed medical and pharmaceutical industry professionals as the only groups capable of handling women's health (Glenn et al., 2013; Gonsalves et al., 2015), this novel subject position of selfless humanitarians constituted a shifting of some power to the a specific segment of the public. Specifically, education programs about

administering CPR and using AEDs catered to individuals with greater social power than others such as university faculty, staff, and students, and employees of public services. The following Tweet and linked quotation provided Twitter users with a sense of how this subject position protected two men from otherwise fatal events, linking them with emergency services, and giving one of them a second chance at life: “Close to home: ‘Guardian angels’ at Aurora facilities thanked for saving 2 local lives #AED #MoreMoments”, And the following quotation from a local news article on the YorkRegion.com website linked in the foregoing Tweet:

[Name withheld] found his “*guardian angels*” at the [location withheld]... After completing a few, something was wrong and he began to slip beneath the surface. Someone in the pool pulled him onto the pool deck and the lifeguards flew into action, some tending to [name withheld], who was unconscious and not breathing, and others calling 9-1-1 and clearing the pool area. “They started working on him right away and after what seemed like forever, they finally got a pulse,” his wife recalls. “All the staff were so caring and they are [name withheld]’s *guardian angels*.”... [Name withheld] got to thank his *angels*... for their quick thinking and life-saving efforts... Only two months later, the [location withheld] staff were required to use their live-saving training when patron [name withheld] called 9-1-1 and alerted them to a man who had collapsed in the men’s washroom. [Names withheld] administered CPR and used the defibrillator on [name withheld] until help arrived. “I just want to thank them *for giving me a second chance at life*,” [name withheld] said. [Italics added for emphasis]

These stories of humanitarian concern and social action add context to current understanding of media portrayals of neo-liberal healthism within the discourse of life and health by positioning “good”, charitable deeds as a moral imperative and exertion of power in

maintaining the cardiovascular health of others. These acts of public service by strangers may be interpreted as situated within the discourse of tragedy and loss in effecting larger scale social consequences in creating “more moments” for family members of those who sustained acute events, with saving their loved ones from death, as was the case for the wife in the foregoing quotation.

The subject position of selfless humanitarians was also constructed for male and female celebrities and athletes who lent their platform to raising awareness of CVD risk factors and symptoms by sharing preventable, tragic deaths among their own family members, aligned prior media portrayals (Compton, 2006; Gonsalves et al., 2015). While these messages may have resonated with some demographic groups, the underlying assumption in these partnerships was that all individuals at risk were aware of film industry leaders and major sports events, and inclined to heed their advice (Gonsalves et al., 2015). All celebrities positioned as community leaders with the capacity to effect large-scale reductions in fatal cardiac events were White and affluent, further marginalizing race and ethnic minority groups and lower socio-economic groups (Clark et al., 2016; Edy, 2010; Gonsalves et al., 2015).

Individuals participating in events to raise funds for HSFC-funded research promoted traditional family ideals when family-friendly activities were the focus, and risk reduction was promoted as a team-building experience to raise employee camaraderie. Thus, these messages problematically catered to another sub-set of the larger population at CVD risk by reinforcing heteronormative values while benefiting mothers who would have otherwise prioritized their family’s health over their own (Clark et al., 2016; Clarke et al., 2007). These fund-raising activities also implied that the public had the financial means to train for, attend, and donate portions of their income for the “greater good” and were positioned in affluent social networks

where charitable donations were the norm (Gonsalves et al., 2015; Miller & Kollauf, 2002). Ultimately, meanings for selfless humanitarians who participated in HSFC research fund-raising programs reinforced the notion that medical and research professionals were visionary leaders in conceptualizing and developing miracle cures and surgical interventions to provide Canadians with “more moments” within the discourse of life and health. These meanings intersected with the discourse of tragedy and loss as public canvassing and donating were portrayed as antidotes to prevent CVD fatalities and acute events with the medical and research community further held morally accountable for deaths which were not preventable.

8.2.5 **Subject position three - Successful survivors**

The meanings attached to successful survival from CVD were shaped by an intersection of the discourses of tragedy and loss, and life and health, and tied to relationships with family members, recreational activities of preference, access to innovative medical advances, and engagement in acts of neo-liberal healthism. The image of the typical individuals who maintained their cardiovascular health and the social categories used to contextualize their identities in the data were a combination of the foregoing considerations versus isolated effects of each one. The dominant image comprised an individual in reciprocal, caring relationships where heterosexual spouses took care of each other’s health needs and often served as the point of contact for emergency medical services, similar to past media portrayals of wives and husbands (Clarke, 1992; Clarke et al., 2007; Edy, 2010), while also sharing caregiving and health maintenance of children by engaging in physically activity and healthy diets together. Independent acts of self-governance and responsibility drew upon the concept of neo-liberal healthism, which comprised manageable, simple individual lifestyle changes (e.g., beginning with five minutes of physical activity per day, cooking meals at home, and performing yoga)

within a discourse of health and life. The following Tweet and linked quotation from an HSFC article entitled “Health seekers: Tips to get physically active” illustrates the dominant focus on family with simple, shared activities appropriate to an individual’s current fitness level (Stampfer et al., 2000): “The majority of stroke cases are preventable. Learn more about stroke prevention and how you can live healthier.”, And, the linked quotation from the HSFC article:

If you're just starting out, go slow and work up gradually. Make sure you have an action plan for each season, so that the weather doesn't get in the way. Work physical activity into your daily life. Take a walk around the block, play with your kids or dance to your favourite music... Involve family and friends in your physical activity program. You'll gain support and companionship. You don't need to go it alone!

This finding of risk reduction through simple strategies affordable by most public demographics is novel in comparison to past media portrayals which promoted vacations, a glass of alcohol per day, and massages as the best strategy to manage one’s risk (Clarke & Binns, 2006; Clarke & van Amerom, 2008). However, aligned with prior media findings, survivors were also contextualized as recipients of medical care characterized by prestigious, novel innovations within paternalistic health care notions (Clarke, 2010; Wharf Higgins et al., 2006). Disease prevention, diagnosis, and treatment were also positioned as a result of financial benevolence of the public in donating money and raising funds for HSF-funded research, campaigns, and initiatives (Gonsalves et al., 2015). Within the context of the discourse of tragedy and loss, and health and life, these notions show ideologies of healthism within most individuals’ means through established risk reducing behaviours (Stampfer, 2000).

In the present Chapter, I presented the research questions, discourses of tragedy and loss, and life and health with which the #MoreMoments Twitter data were interpreted, and the subject

positions of visionary leaders, selfless humanitarians, and successful survivors constructed within and across the two discourses. With the discussion of the #MoreMoments Twitter data outlined, the following Chapter contains information about the contradictions and tensions between and within medicalization and healthism, recommendations for health promotion, and future research directions.

Chapter 9

Conclusions

This Chapter is divided into four sections to outline the contradictions and tensions between, and within, medical control and healthism, resistance of dominant health ideologies and notions, practical recommendations for the use of social media in promoting cardiovascular health, and future research directions. These sections comprise key points drawn from the four studies that comprised the dissertation.

9.1 Contradictions and tensions between and within medical control and healthism

The meta-synthesis of qualitative articles about Canadian and U.S. mass media portrayals between January 1, 2000, and September 30, 2016, revealed that women's and men's CVD was positioned primarily within the frame of medicalization (Gonsalves et al., 2017a). This health frame was also noted by McGannon et al. (2016), Gibson et al. (2015), and King (2010, 2004) in media portrayals of women's breast cancer and drew on ideologies related to technoscience which favoured public health surveillance by gatekeepers and required development of cutting edge knowledge through research and technology. The last three studies, in which meanings surrounding CVD portrayals were critically explored in Facebook and Twitter by the HSFC, WHA, and More Moments campaign, showed that cardiovascular health promotion in these media sources demonstrated a shift with neo-liberal acts of healthism sharing the focus with medical control. In this paradigm shift towards healthism, women's health was increasingly described through neo-liberal acts of healthism which positioned risk reduction and health maintenance within their means through self-surveillance, individual responsibility, and self-governance (Cheek, 2008, 2004). When meanings of medicalization and healthism were

unpacked to understand how these broad ideologies were conveyed, they did not form clear-cut categories but rather worked to co-create particular implications for women's health promotion.

The first topic around which medicalization and healthism shared meanings was the social agents to whom power to reduce risk and maintain health was assigned. Within the medicalized frame of reference, women were portrayed as being completely dependent on the benevolence and compassion of medical professionals and researchers in correctly identifying CVD risk, treating risk, and dedicating their professional lives and expertise to find new cures to save women's lives (Clarke et al., 2007; Gonsalves et al., 2015; McGannon et al., 2016).

Women's bodies and CVD pathology was positioned against male-pattern bodies and risk profiles, with women's medical deviancy being corrected by acts of valor by expert gatekeepers (Compton, 2006; Clarke & van Amerom, 2008). The meanings assigned to responsibility of women's cardiovascular health were firmly planted in the hands of women at risk themselves within the frame of healthism, however, one form of self-surveillance comprised enacting the roles of medical consumerists by seeking health screens and obtaining treatments (Gonsalves et al., 2015).

Philanthropic and humanitarian acts of fundraising, donating, and canvassing for the HSFC and WHA in the last three studies were public acts of support for the medicalization of CVD risk reduction that constructed contradictory meanings for medical frame and healthism frame. On one hand, the storyline that requested direct donations to the HSFC and WHA on Facebook, and purchasing affiliate merchandise such as Roots Canada Ltd. accessories with the HSFC logo on Facebook and Twitter, did not offer opportunities for women to link these messages with personal risk identification or reduction. On the other hand, HSFC fundraising events such as Big Bike Twitter posts provided the public with resources and time with reasons

to train and participate in physically active events that simultaneously promoted healthy lifestyles while feeding the notion that gatekeepers must be financially supported to effectively police public health.

Another consideration along which nuanced meaning surrounding the intersection of medicalization and healthism occurred was the life course perspective. In particular, the WHA Facebook posts and user comments, positioned younger women's bodies as more malleable and flexible in benefitting from risk reduction (McMahan et al., 2008; Robertson, 2001; Zieske et al., 2005), versus older women's bodies which were contextualized with advanced CVD more reliant on curative medical services. Younger women's risk reduction was also promoted within a variety of settings such as sport and mindfulness, and their identities were not attached to heteronormative ideals of wives and mothers, in contrast to older women in these studies and all women in print media data (Clark et al., 2016; Clarke et al., 2007; Gonsalves et al., 2015). Tensions in meanings within notions of healthism was noted when agency in risk reduction after sustaining acute cardiac events through cardiac rehabilitation was positioned both as a moral imperative grounded in personal responsibility, and as a prescriptive treatment dependent on regular meetings with nurses to modify exercise plans as recovery progressed/regressed. Thus, while it is evident that the HSFC and WHA promoted risk reduction as the responsibility of expert gatekeepers and individuals at CVD risk, tension in meanings may be interpreted as limiting public understanding of what their options are. Complicating these potentially confusing messages (Mosca et al., 2013, 2006), individuals without scientific education backgrounds may be especially vulnerable given these organizations' focus on constantly updating current knowledge as recommendations/guidelines may be made obsolete quickly with a regular influx of "new knowledge".

Women's identities as mothers were also positioned within both the medical frame and healthism frame as simultaneously beneficial and the main impetus for preventing CVD, and as a barrier to reducing risk and obtaining urgent medical care. With the exception of visual data in the #MoreMoments Twitter study, the dominant positioning for women's maternal identities lacked opportunities for women to negotiate their caregiving with CVD risk reduction. Further, women's risk prior to diagnosis was contextualized within the healthism frame with moral implications for failing to take care of their health through self-governance and self-monitoring, and prioritizing caregiving over their own health. Mothers in latter stages of disease progression were positioned in the medical frame as dependent on expert gatekeepers and chastised for providing a sub-optimal standard of maternal caregiving as a result of the health deteriorations after acute cardiac events. Continuation of maternal identities post-events were positioned as the main impetus for which women should diligently comply with medical treatment, consider lifestyle changes, and donate to fund-raising events and scientific research grants. Given the novel finding of women negotiating their dual roles in the #MoreMoments data (e.g., biking with children thus providing care and reducing CVD risk), further research in this area may explore in what ways social media users make sense of motherhood in light of CVD.

9.2 Recommendations for corporate use of social media for cardiovascular health promotion

The critical findings of this study helped to identify beneficial and problematic portrayals of CVD in Canadian and U.S. public health messages on Facebook and Twitter. Organizational and user posts on the HSFC and WHA Facebook page focused on CVD risk factors out of women's control (e.g., family history of risk) and those that warranted medical treatments (e.g., hypercholesterolemia), and minimized the impact of risk factors to which women may have

directly contributed (e.g., physical inactivity, smoking) (Stampfer et al., 2000). This focus on non-modifiable risk factors promoted a dependence on expert gatekeepers to manage/control, so that women may pursue other, more worthwhile gendered roles, such as caring for their husbands and children (Clark et al., 2016; Clarke et al., 2007; Miller & Kollauf, 2002). In addition to managing individual women's CVD risk, medical and pharmaceutical gatekeepers were further held accountable to find cures to eradicate incidences of women's CVD at a collective level, taking away tools for the personalization of risk factors to promote the construction of CVD as a large-scale epidemic to which women's bodies *will* succumb (Gonsalves et al., 2015; Roy, 2008).

On the other hand, a different set of narratives with different meanings for women's identities emerged from some WHA Facebook posts, Facebook user comments to HSFC Facebook posts and #MoreMoments Tweets. In the Canadian Facebook comments and Tweets, the public was positioned as responsible and in charge of preventing fatalities by taking on some of the expert roles of administering life-saving medicalized techniques such as CPR and AEDs. Individuals at risk also engaged in activities that improved their cardiovascular health such as biking, walking, skiing, and skipping, cooking heart-healthy meals at home, and rejecting corporate contribution to CVD risk. Despite supporting women's identities as active agents in reducing their own risk, these opportunities for meaningful risk reduction through personalized awareness of risk were minimized in favor of promotion of these activities for corporate gain (Lupton, 2014; Zoller, 2007). For example, when the Twitter community promoted training for and participating in Big Bike, the goal of biking was to raise funds for the HSFC, similar to other national charity organizations such as the British Heart Foundation (Farmer et al., 2009). Aligned with meeting branding/image goals, the problematization of tobacco advertisements to the

LGBTQ community by the WHA comprised a single Facebook post, which may be interpreted as a branding strategy in light of the rest of the WHA posts, all of which surrounded the benevolence of WHA medical leaders and the promotion of a White, affluent, heteronormative typical U.S. women at CVD risk (Edy, 2010; Gonsalves et al., 2015).

Thus, in order for meaningful health promotion to occur through national organizations' use of social media, a number of recommendations may be put forth as a result of the findings of this dissertation. User activity with the HSFC and WHA Facebook data, and More Moments campaign Twitter data, contained identities/subject positions for women who did not meet the ideals for femininity and risk reduction inherent in dominant organization messages. Women and their social networks positioned their risk within roles that were non-compliant with corporate ideologies (e.g., taking ownership for health away from corporate branding of unhealthy lifestyles), social realities of health disparities (e.g., dying from acute cardiac events due to lack of health insurance in the U.S.), gender expression minority demographics (e.g., LGBTQ health activities), rejection of medicalized ideals (e.g., digital dialogues with HSFC social media staff regarding expenditure of donations), and (re)producing the messy emotional and social realities of grieving deaths and recovering from life-altering cardiac events (e.g., breakdown of family relationships). This intentional and compelling re-framing of cardiovascular health stories from the vantage points of those at greatest risk and those who lost loved ones to CVD, provided opportunities for meanings around talk and text to be directed from the perspectives of health activism. Re-creation of such stories to a large audience on social media were limited in traditional, uni-directional media formats such as magazines and newspapers, without opportunity for user interactivity, and thus absent in findings of qualitative media analyses included in the meta-synthesis (see Gonsalves et al., 2017a).

With regards to moving beyond the status quo of dominant ideologies and notions, and creating spaces for voicing different health-related lived experiences and viewpoints, further opportunity needs to be created to explore the following pieces of women's cardiovascular health: how Canadian and U.S. women conceptualize activism, their identities, and their wellbeing; their experiences in diagnosis, risk reduction, and secondary prevention; the intersections of their gender, race, ethnicities, and income in meeting their health needs; and how changes in their built environments, health care policies and programming, and social support networks may influence their CVD risk reduction. Within the Canadian context, while the HSFC website provides the public with some information about the social determinants of health, problematized the perpetuation of the Western medicalized perspective to women's CVD, promoted a culturally-centered approach to understanding and promoting a sense of wellness (see HSFC, 2018e), these messages were absent on their Facebook and Twitter feeds. HSFC Communication Officers and Media Relations Officers may liaise with grass-roots community advocates, women with lived experiences of CVD, and critical digital health scholars to co-develop appropriate guidelines for the use of social media for cardiovascular health promotion. Women at risk may exert agency in promoting heart-healthy messages to members of their local cultural communities by leading/facilitating digital group discussions about how culturally-relevant activities may be created or current recommendations may be adapted to suit their needs.

This dissertation also adds to current literature surrounding the ethics of partnerships and sponsorships of health organizations, health campaigns, and public health promotion (see Jane & Gibson, 2017), by noting problematic implications of catering messages to donor populations. Particularly, public-private partnerships meet corporate social responsibility interests that benefit

partner and sponsor organizations which are legally mandated, motivated by profit versus philanthropy, with conflicting stakeholder motives and inadequate governance (Hernandez-Aguado & Zarazoga, 2016; Du, Bhattacharya, & Sen, 2010). While the HSFC and WHA targeted donor populations in their social media health promotion messages, demographics at greatest risk for CVD were those without the financial means to benefit from messages underpinned by corporate agendas, and were thus excluded from priority messaging (Clark et al., 2016; Gonsalves et al., 2015). A consideration of all demographics at CVD risk, and particularly, those at greatest risk, is required by communications professionals, along with more transparent expenditure of funding, and more knowledge dissemination of gender and cultural health-related scholarship. Additionally, broadening campaign messages to include women of diverse gender expressions, social roles, and health literacy levels may reach target demographics to meaningfully personalize their risk, and understand options for risk reduction within their means. Similar to my prior recommendation of including women from minority race and ethnic backgrounds in the co-development of appropriate health promotion on social media, the catering of messages to women of diverse gender backgrounds and income levels will also benefit from providing these women with opportunities to make their voices and preferences known.

When delivering health promotion messages at the local level, public health authorities may engage the public in discussions in order to enable meaningful cultural knowledge translation and sharing of customs and traditions. Community leaders may help facilitate group discussions in safe spaces to foster sharing and co-development of CVD risk reduction strategies and goals that women deem sustainable long-term. Women may set personalized achievable goals within their means and preferences to maximize the benefits of lifestyle, behavioural

changes. Further, health promotion professionals may collaborate with groups of women to cater mainstream U.S. and Canadian risk reduction guidelines to particular racial and ethnic norms and preferences at the local level.

9.3 **Future research directions**

The findings of the HSFC and #MoreMoments data revealed that women's CVD was problematically conveyed with an emphasis on philanthropic and humanitarian acts of fundraising and canvassing to maintain scientific innovations by the HSFC. Despite Indigenous women's increased risk of CVD (Reading, 2015), campaign narratives on Facebook and Twitter lacked any indication of the health disparities experienced by this population or cultural practices in women's health messages. Visual imagery and video messages also focussed on White Canadian's CVD risk and experiences, further limiting discursive resources with which Indigenous women may draw in making sense of their risk. Other problematic portrayals in the data included the construction of women's cardiovascular systems as sites of fear and dependence, which (re)produced the notion that women have limited health agency. A key finding from the four studies in this dissertation was the absence of identities and voices of women from diverse income, gender and social backgrounds; women who did not identify with affluent, heteronormative ideals, and those who did live heteronormative lives but constructed their CVD risk and prevention independent of consumerist, caregiving identities. The ways in which minority demographics of women make sense of their risk in light of nuanced personal identities, social roles, and gender expressions, remains unanswered. Future research studies are warranted to investigate how these groups of women experience CVD risk, negotiate life roles with risk reduction, and navigate their recovery journey through the medical frame. Another potential line of investigation comprises personal meanings that Canadian and U.S. women

ascribe to the social media messages they receive and the institutional messages that attempt to “give voice” to their identities. Women of a variety of race, ethnic, urban, rural, income, gender backgrounds, and ages may be interviewed in relation to their digital identities to understand the implications of their consumption of social media messages about CVD. Women who have experienced acute cardiac events may be shown sample messages from the HSFC and WHA Facebook posts to learn their perceptions of these materials and how these meanings may support or preclude long-term behavioural changes towards healthier lifestyles.

With respect to one particular cultural demographic at greater CVD risk, Indigenous Canadian women have reported their preference for receiving health information (e.g., during pregnancy) through social media platforms (Darroch & Giles, 2016). There is a gap in literature concerning how Indigenous women make sense of their cardiovascular health through their engagement with social media narratives. This knowledge gap can be bridged by critically exploring (re)presentations of women’s CVD in social media posts, and how Indigenous women consume media messages and give meaning to their risk of CVD. Indigenous women who have experienced CVD may be invited to share their perspectives of CVD-related campaign messages and HSFC resources to determine the ways in which women negotiate cardiovascular health promotion information, and if/how they would implement or act on these resources.

There is also limited critical understanding about the intricate ways in which urban Indigenous women residing in Canada blend elements of traditional Indigenous and/or Western health perspectives to construct their views of their hearts, circulatory systems, and bodies (Medved, Brockmeier, Morach, & Chartier-Courchene, 2013). Scholars have begun to explore the ways in which Indigenous women position their traditional health understandings against current Canadian biomedical models and guidelines to structure their health beliefs. Ojibwe and

Cree Canadian women in Western Canada have reported conceptualizing CVD as “a White man’s sickness” and as contextualizing their CVD risk within ongoing colonialism, community imbalances, and shifts in their gendered social roles (Medved et al., 2013). Participants in Medved et al.’s (2013) study interpreted Canadian public health guidelines such as physical activity recommendations as being reminiscent of residential school experiences, further stripping them of their culture. As a result of attempts at forced assimilation to Euro-centric culture through means such as the residential schooling system and restrictions on traditional and land-based activities, the interconnections between optimal physical, mental, emotional, and spiritual wellbeing were and continue to be disrupted (Medved et al., 2013). Some Indigenous Peoples construct their bodies as sites of socio-political abuse and marginalization due to intergenerational trauma, grief, and loss (Medved et al., 2013). The necessity to develop regional cultural understanding versus generalizing cardiovascular health beliefs across Indigenous communities was reported by Indigenous women residing in British Columbia (Ziabakhsh, Pederson, Prodan-Bhalla, Middagh, & Jinkerson-Brass, 2016). These women problematized aspects of current Euro-centric cardiovascular health promotion approaches such as focusing on Cree traditions (e.g., Sacred Blanket Ceremony) to contextualize all Indigenous women’s cultures, and use of medicalized tools to measure program outcomes (e.g., pedometer data) (Ziabakhsh et al., 2016).

First Nations women in Ontario have reported a complex relationship between their traditional gendered identities, Western standards of “beauty”, and their CVD risk (Angus et al., 2005). While current literature has begun to uncover some of the meanings Indigenous women in Canada give to their cardiovascular systems and bodies (Wabano Centre for Aboriginal Health, 2015), current scholarly understanding is still extremely limited. The vast majority of reports and

journal articles about women's CVD were published over a decade ago and focused on one specific risk factor for CVD – type 2 diabetes in eastern Canada (e.g., Jacklin, 2007; Sunday, Eyles, & Upshur, 2001). Further, the findings from western Canada lacked depth and critical interpretations of cultural CVD beliefs, and they also lacked opportunities for Indigenous women to resist/challenge problematic dominant media (re)presentations of their CVD. Aligned with positioning social media as a tool for health activism as noted in the findings of this dissertation (Zoller, 2017), another line of investigation may constitute a grass-roots approach to develop culturally safe health promotion with Indigenous co-participants. Another line of investigation may comprise an exploration of Indigenous women's traditional teachings and the ways in which current socio-cultural and political considerations influence their beliefs through digital storytelling. Indigenous digital storytelling is a form of culturally-relevant community-based research that supports health activism through identity affirmation and agency in social change (Iseke, 2011; Cunsolo Willox et al., 2012).

Digital storytelling enables remembrance of ancestral ways of knowing and being, connecting with histories and cultures, sharing within and beyond social networks, self-representing one's experiences and beliefs, and transforming Western health institutional assumptions and policing of Indigenous health (Iseke, 2011; Cunsolo Willox et al., 2012). Co-participants may promote and/or challenge taken-for-granted (re)presentations of their cardiovascular health in Canadian media culture by gathering and/or creating meaningful videos, photographs, images/artwork, music, and text they deem to be representative of their health and body conceptualizations. The foregoing pieces may be tied together in the format of culturally safe short films (3-5 minutes each) with audio recordings of first-person narrations from co-participants themselves. The co-participants may then choose to share their videos on their

preferred social networking site accounts (Instagram, Snapchat, Twitter, Facebook, etc.), and/or create and manage novel accounts on social media with the purpose of sharing their stories to engage in knowledge translation through social activism (Zoller, 2017). This line of investigation will answer calls from scholars such as Prince et al. (2017) and Reading (2015) who noted that qualitative research is needed to understand the socio-cultural context within which Indigenous women's CVD risk perceptions and the community-centered approach from which health promotion may be developed.

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**Appendix A: List of articles included in meta-synthesis of qualitative research studies
about mass media portrayals of CVD**

Serial no.	Authors and year of publication	Purpose(s)	Media sources	Country	Study design
1	Bell, R.A., Kravitz, R.L., & Wilkes, M.S. (2000)	Explore trends in prevalence, shifts in the medical conditions for which consumer-targeted prescription drug advertisements drugs are promoted, reliance on financial and nonmonetary inducements, and appeals used to attract public interest.	320 drug advertisements for 101 drug brands appearing in 18 consumer magazines from 1989 through 1998 (e.g., <i>Vogue</i> , <i>Gourmet</i> , <i>Time</i> , <i>Ebony</i>)	U.S.	Content analysis
2	Bell, R.A., Wilkes, M.S.,	Assess the extent to which efforts to	320 direct-to-consumer	U.S.	Content analysis

- & Kravitz, R.L. (2000) educate the public about medical conditions and associated treatments were attempted by direct-to-consumer prescription drug advertising. prescription drug advertisements of 101 drug brands appearing in popular magazines from 1989 through 1998 (e.g., *Vogue*, *Gourmet*, *Time*, *Ebony*)
- 3 Clark, M., McGannon, K.R., Berry, T.R., Norris, C.M., Rodgers, W.M., & Spence, J.C. (in press) 1. Examine the ways gender, risk, and prevention are constructed within the Canadian *Heart Truth* campaign. 2. Consider potential health promotion, policy and practical implications. 1 advertisement in the newspaper *Globe and Mail*, 1 advertisement in the magazine *Chatelaine*, and 4 advertisements, 4 videos, 8 testimonials (including 8 photographs, 1 accompanying each testimonial), Canada Critical discourse analysis

and 8 articles
 appearing on the
 Canadian *Heart
 Truth* campaign
 website from
 January 2 - March
 15, 2013

- | | | | | | |
|---|---|---|--|-----------------|--|
| 4 | Clarke, J. N.,
& Binns, J.
(2006) | <p>1. Examine the portrayal of heart disease in mass-circulating magazines from 1991, 1996, and 2000.</p> <p>2. Consider the extent to which recent research findings on inequity and heart disease were included in media portrayal.</p> | <p>77 articles from the 20 highest circulating U.S. and Canadian mass magazines (e.g., <i>Good Housekeeping</i>, <i>Modern Maturity</i>, <i>Time Magazine</i>, <i>Prevention Magazine</i>, <i>Redbook</i>)</p> | U.S. and Canada | <p>1. Deductive content analysis for manifest content.</p> <p>2. Ethnographic content analysis for latent content.</p> |
|---|---|---|--|-----------------|--|

5	Clarke, J. & van Amerom, G. (2008)	<p>1. Provide detailed qualitative insight into the legitimations used, or the relevant discourses deployed in supporting the dominant media and policy renderings of disease.</p> <p>2. Investigate the portrayal of the social determinants perspective in magazine articles.</p>	40 articles published in 2001 from the highest circulating U.S. and Canadian magazines (e.g., <i>Modern Maturity</i> , <i>Time</i> , <i>Prevention</i> , <i>Flare</i>)	U.S. and Canada	Qualitative critical frame, discourse analysis
6	Clarke, J., van Amerom, G., & Binns, J. (2007)	Report on a critical discourse analysis of the similarities and differences in the portrayal of heart disease	75 articles from the 20 highest circulating English language U.S. and	U.S. and Canada	Inductive qualitative content analysis

among men and
 women in mass
 print magazines.
 Canadian
 magazines (e.g.,
Canadian Living,
Good
Housekeeping,
Harper's
Bazaar, *Ladies'*
Home Journal)

7	Compton, J. (2006)	Determine the role of entertainment television in publicizing health- related content, including both purposive and incidental messages.	51 late-night comedy monologue jokes from 787 days of programs regarding Dick Cheney's cardiovascular health from July 25, 2000 to October 7, 2003 <i>(The Tonight</i> <i>Show, The Late</i> <i>Show With David</i> <i>Letterman, and</i>	U.S.	Textual analysis
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			<i>Late Night With Conan O'Brien</i>		
8	Edy, C.M. (2010)	1. Examine how women's risk factors for heart disease were framed as problems and remedies in feature articles about heart disease in <i>Good Housekeeping</i> magazine from 1997 to 2007.	18 feature articles from <i>Good Housekeeping</i> magazine between 1997 and 2007	U.S.	1. Grounded theory. 2. Textual analysis.
		2. Examine how this portrayal compares with information published by the American Heart Association during the same timeframe.			

- | | | | | | |
|----|---|--|--|----------------------------|----------------------------------|
| 9 | Fotiadou, D.,
Northcott, S.,
Chatzidaki,
A., & Hilari,
K. (2014) | Explore the impact
of stroke and
aphasia on
relationships with
family, friends and
the wider network
through analysing
blogs written by
people with
aphasia. | 10 blogs by sole
authors who had
aphasia following
a stroke, and
which reflected
on their social
network | U.S. data
only analyzed | Framework
analysis |
| 10 | Gonsalves,
C.A.,
McGannon,
K.R.,
Schinke, R.J.,
& Michel, G.
(2016) | Explore the social
constructions of
women's
cardiovascular
disease and the
implications for
identity
construction in a
women's interest
magazine that was
a corporate partner
of <i>The Heart Truth</i> | October 2003
issue of <i>Glamour</i> | U.S. | Ethnographic
content analysis |

- campaign (i.e., *Glamour*).
- 11 Hale, T.M., Pathipati, A.S., Zan, S., & Jethwani, K. (2014) 1. Describe the results of a search for 20 common health conditions on Facebook “Pages”. 2. Identify the purpose and content of these pages. 3. Evaluate user engagement with these pages. 522 Facebook pages for 20 health condition on July 24, 2012. U.S. Content analysis
- 12 Hoffman-Goetz, L., Shannon, C., & Clarke, J. N. (2003) 1. Determine the volume and focus of articles on 4 chronic diseases in newspapers targeting First Nations, Métis, and 14 national and regional Aboriginal newspapers published in English from 1996–2000 (e.g., Canada Content analysis

Inuit demographics *Windspeaker,*
 in Canada. *First Nations*
 2. Determine the *Drum,*
 type and extent of *Anishnabek News,*
 information use *Turtle Island*
 about cancer, heart *News)*
 disease, diabetes,
 and HIV/AIDS
 embedded in the
 articles.

- | | | | | | |
|----|--|---|---|------|------------------|
| 13 | Mastin, T.,
Andsager,
J.L., Choi, J.,
& Lee, K.
(2007) | Determine how
direct-to-consumer
advertisements
attempt to target
specific audiences. | Direct-to-
consumer
advertisement in
4 magazine
genres aimed at
general audiences
with
entertainment and
news interests,
Black audiences,
and women (e.g.,
<i>Good</i>
<i>Housekeeping,</i> | U.S. | Content analysis |
|----|--|---|---|------|------------------|

			<i>Ladies' Home Journal, Ebony, Essence)</i>		
14	Miller, C.L. & Kollauf, C. R. (2002)	1. Explore when and how information on women's cardiac symptoms was portrayed. 2. Determine the evolution of this information.	1. Magazine articles from 1957 to 1999 (e.g. <i>Harper's Bazaar, Reader's Digest, Good Housekeeping, Today's Health</i>). 2. Archival records of the American Heart Association of Wisconsin from the early 1950s to 2000 (e.g., newsletters, flyers, videotapes).	U.S.	Content analysis
15	Moyer, C.A., Vishnu, L.	1. Evaluate how health coverage in	1. 12 issues of <i>Good</i>	U.S.	Content analysis

	O., & Sonnad, S. S. (2001)	women's magazines in the U.S. compared with articles in medical journals about women's health interests, and women's greatest health risks.	<i>Housekeeping and Woman's Day</i> published between January and June 1997. 2. Written records of patient questions and requests for information about women's health presented to the University of Michigan's Women's Health Resource Center between March and June 1997.		
16	Moynihan, R., Bero, L., Ross- Degnan, D., Henry, D.,	1. Examine whether benefits of medications for cardiovascular disease and	180 stories from 36 U.S. newspapers between 1994 and 1998, and 27	U.S.	Content analysis

- Lee, K., osteoporosis were television stories
 Watkins, J., stated in relative or from ABC, CBS,
 ... & absolute terms. and NBC nightly
 Soumerai, 2. Examine network news and
 S.B. (2000) whether potential CNN between
 harm and costs 1994 and 1998.
 were discussed.
 3. Examine
 whether cited
 experts or study
 groups to industry
 were included.
- 17 Park, H. & Investigate the 192 releases from U.S. Content analysis
 Reber, B.H. frames that health the American
 (2010) organizations used Heart
 in order to Association, 51
 determine how they releases from the
 attempted to shape American Cancer
 the public's Society, and 73
 understanding of releases from the
 health knowledge American
 and portray their Diabetes
 initiatives to Association.

- promote public health.
- 18 Pribble, J.M., Goldstein, K.M., Fowler, E.F., Greenberg, M.J., Noel, S.K., & Howell, J.D. (2006) Evaluate the health topics and reporting characteristics of health stories on local television news across the U.S. Full-length broadcasts of local television news from a representative sample of the top 50 U.S. media markets (122 stations). U.S. Content analysis
- 19 Roy, S.C. (2008) Examine the cultural messages about women and health by focusing on how responsibility for health is constructed in 3 top-selling Canadian women's magazines. *Chatelaine*, *Canadian Living*, and *Homemaker's* magazines published between 1997 and 2000. Canada Content analysis

20	Sarrazin, M.S.V., Cram, P., Mazur, A., Ward, M., & Reisinger, H.S. (2014)	Determine patient experiences and perceptions regarding anticoagulant drug entitled "Dabigatran" through comments posted on publicly accessible virtual discussion forums and Internet support groups.	Comments posted between January 2011 and September 2012 from websites focusing on support of patients with atrial fibrillation or on anticoagulation therapy.	U.S.	Thematic analysis
21	Sokol, J., Wackowski, O., & Lewis, M.J. (2010)	1. Compare the prevalence and targeting of direct-to-consumer advertising in women's magazines of differing target age demographics.	60 magazine issues (12 issues from each magazine) published from July 2005 through June 2006 (<i>Cosmopolitan</i> , <i>Glamour</i> , <i>Redbook</i> , <i>Ladies'</i>	U.S.	Content analysis

2. Obtain *Home Journal*,
 additional insight *Good*
 into the content and *Housekeeping*)
 style of direct-to-
 consumer
 advertisements,
 such as the types of
 persuasive appeals
 and forms of
 evidence used,
 differing use of
 these appeals by
 drug condition
 advertised, and
 types of
 information
 sources to which
 readers were
 directed.

22	Sumpradit, N., Ascione, F.J., &	Investigate the concurrent presentation of motivational	Print advertisements from September to December	U.S.	Content analysis
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- Bagozzi, R.P. (2004) themes in direct-to-consumer print and television advertisements. 2001, and targeted television advertisements from November 2001.
- 23 Thompson, T.L., Robinson, J.D., Cusella, L.P., & Shellabarger, S. (2000) Examine the health problems affecting female characters in soap operas in the 1980s and 1990s. 754 weeks of synopses of daytime serials published in the Saturday edition of a local newspaper from January 1985 to June 1999. U.S. Content analysis
- 24 Turner, M. B., Vader, A.M., & Walters S.T. (2008) Evaluate the consistency of cardiovascular health information in popular women's magazines against the American Heart Association's 236 articles from 24 issues of *Cosmopolitan*, *Glamour*, *Shape*, and *Vogue* magazines published between January and June 2005. U.S. Content analysis

guidelines for
 nutrition, physical
 activity, weight
 management, and
 smoking.

- | | | | | | |
|----|---|--|--|------|------------------|
| 25 | Welch Cline,
R.J. &
Young, H.N.
(2005) | Assess the nature
of messages in
print direct-to-
consumer
advertisements to
identify potential
guidelines provided
to consumers for
communicating
with physicians. | 225 direct-to-
consumer
advertisements in
18 popular
magazines (684
issues) from
January 1998 to
December 1999
(<i>Vogue, Ebony,</i>
<i>Prevention</i>) | U.S. | Content analysis |
| 26 | Welch Cline,
R.J. &
Young, H.N.
(2004) | 1. Propose a social
cognitive
theoretical
framework for
understanding and
investigating
direct-to-consumer | 225 direct-to-
consumer
advertisements in
18 popular
magazines (684
issues) from
January 1998 to
December 1999 | U.S. | Content analysis |

advertisements' effects. (*Vogue, Ebony, Prevention*)

2. Report the first in a series of studies using that framework to investigate features of direct-to-consumer advertisements that may function as observational learning for consumers and, ultimately, influence the physician-patient relationship.

27	Wharf Higgins, J. W., Naylor, P. J., Berry, T., O'Connor,	Capture the broader provincial context (i.e., the province of British Columbia in	Media summaries from both rural and urban print and electronic (television, radio,	Canada	Content analysis
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	B., & McLean, D. (2006)	Canada) within which the health authorities developed and delivered cardiovascular disease prevention policies and programs.	online) sources routinely collected by the B.C. Ministry of Health from January 1999 to December 2003		
28	Woloshin, S., Schwartz, L.M., Tremmel, J., & Welch, H.G. (2001)	Establish what messages were being received by the public from direct-to-consumer advertisements.	67 direct-to- consumer advertisements in the first issue of 10 magazines in every other month between July 1998 and July 1999 (<i>Ladies’ Home Journal, Good Housekeeping, Better Homes & Garden</i>)	U.S.	Content analysis

29	Ye, Y. & Ward, K.E. (2010)	Examine the portrayal of illness and disease in entertainment television; particularly in 2 top-ranked primetime network medical dramas in the US; “Grey’s Anatomy” and “ER”.	127 episodes of Grey’s Anatomy (ABC) and ER (NBC) (61 and 66, respectively)	U.S.	Content analysis
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