

This material is protected by U.S. copyright law. Unauthorized reproduction is prohibited. To purchase quantity reprints, please e-mail [reprints@ons.org](mailto:reprints@ons.org) or to request permission to reproduce multiple copies, please e-mail [pubpermissions@ons.org](mailto:pubpermissions@ons.org).

## Studying Delays in Breast Cancer Diagnosis and Treatment: Critical Realism as a New Foundation for Inquiry

Jan Angus, RN, PhD, Karen-Lee Miller, MSW,  
Tammy Pulfer, RN, MN, and Patricia McKeever, RN, PhD

**Purpose/Objectives:** To examine how delays in breast cancer care currently are conceptualized and to introduce philosophical and theoretical tenets of critical realism as an alternative approach.

**Data Sources:** Health and social sciences literature.

**Data Synthesis:** Diagnostic and treatment delays in breast cancer most frequently are conceptualized as patient, provider, or system related. The approach has limited utility in guiding explanatory analysis because it does not acknowledge the social context in which the delays occur. The philosophical tenets of critical realism and two related theoretical approaches are an alternative. They illustrate how an individual's biologic, social, and material resources may undermine or support structural inequities in access to breast cancer care.

**Conclusions:** Critical realism provides a useful framework for analysis of links between social inequalities and delays in breast cancer diagnosis and treatment.

**Implications for Nursing:** Access to breast cancer care could be better understood and conceptualized by basing future research and theoretical endeavors on a critical realist perspective.

Although the incidence of breast cancer continues to increase, mortality rates are declining and are at their lowest level since the 1950s (Canadian Cancer Society/National Cancer Institute of Canada, 2006). However, the positive trend may be attenuated for some women by diagnostic and treatment delays. International trends in access, delays, and mortality in breast cancer care tend to align with patterns of disadvantage associated with income, age, education, ethnoracial characteristics, and geographic location (Katz, Zemencuk, & Hofer, 2000; Lauver, Coyle, & Panchmatia, 1995; Li, Malone, & Daling, 2003; Montella, Crispo, Botti, et al., 2001). Consequences of diagnostic and treatment delays include affective distress (Benedict, Williams, & Baron, 1994; Deane & Degner, 1998; Olivotto et al., 2001) and more advanced disease at diagnosis, which, in turn, is accompanied by more aggressive treatment and poorer prognosis (Barber, Jack, & Dixon, 2004; Libstug, Moravan, & Aitken, 1998; Richards, Smith, Ramirez, Fentiman, & Rubens, 1999). Thus, the

### Key Points . . .

- The existing conceptual approach to diagnostic and treatment delays in breast cancer is mainly descriptive and does not embed delay or access issues in a theory of their larger social context; hence, inequitable access to breast cancer care is acknowledged but not explained.
- The tenets of critical realism provide a useful framework for understanding how diagnostic and treatment delays in breast cancer are linked in multifaceted ways with social inequalities, because they direct attention to the interplay between social structure and individual agency.
- Disrupted or abundant flows of several forms of resources are linked with social class, and they create conditions of constraint or enablement that contribute to, but do not necessarily determine, access to breast cancer care.
- Access to the necessities of health and health care must be understood more broadly and conceptualized as a matter of converging and contextually activated forces that may support or undermine the capabilities of women with breast cancer.

problems associated with impoverishment, ageism, and racism are compounded further by disproportionate burdens of illness for some women with breast cancer.

*Jan Angus, RN, PhD, is an assistant professor in the Faculty of Nursing and Karen-Lee Miller, MSW, is a doctoral candidate in the Department of Public Health Sciences, both at the University of Toronto in Canada; Tammy Pulfer, RN, MN, is a clinical nurse specialist in geriatrics at Mount Sinai Hospital in Toronto; and Patricia McKeever, RN, PhD, is a professor in the Faculty of Nursing at the University of Toronto. (Submitted September 2005. Accepted for publication December 31, 2005.)*

Digital Object Identifier: 10.1188/06.ONF.E62-E70

Delays in the diagnosis and treatment of breast cancer have been studied from a variety of perspectives using a range of methods. However, an individualistic focus prevails and tends to highlight characteristics of affected women rather than their social and material circumstances. The study of inequitable access to cancer care resources requires close and simultaneous attention to the individual and social contexts in which disparities occur.

This article highlights the need to draw more explicitly on philosophically based theoretical perspectives that facilitate a more robust analysis of the social world. In the first section, research literature on diagnostic delays in breast cancer is reviewed. A growing body of research is developing predictive models to help determine the characteristics of women who may delay seeking care or encounter barriers to diagnosis. However, the existing conceptual approach to diagnostic and treatment delays is mainly descriptive and does not embed delay or access issues within a theory of their larger social context. The absence of a research framework based on social theory frustrates analysis of the myriad ways that patterns of advantage and disadvantage may be structured and activated in the care of women with breast cancer. Thus, in the second section, the tenets of critical realism, a philosophical stance that underlies several social theories, are outlined as one potential foundation for future research. The theoretical writings of Scambler (2001) and Archer (2003), which are derived from the tenets, are highlighted in the discussion because they illustrate the potential contributions of a perspective that encourages analysis of both individual agency and social structure.

## The Literature: Diagnostic and Treatment Delays in Breast Cancer

Constraints to the timely diagnosis of cancer and access to treatment have been attributed mainly to the characteristics of individual patients, healthcare practitioners, or the healthcare system (Afzelius, Zedeler, Sommer, Mouridsen, & Blichert-Toft, 1994; Andersen & Cacioppo, 1995; Burgess, Ramirez, Richards, & Love, 1998; Caplan & Helzlsouer, 1992; Oliveira et al., 1999; Safer, Tharps, Jackson, & Leventhal, 1979). The prevailing model of delays in breast cancer diagnosis and treatment recognizes only two categories of actors or agents (patients and providers) and one set of structures (the healthcare system). In general, research findings suggest links between social inequalities and timely access to care but do not build an explanatory account of the contributing social mechanisms.

**Patient-related delays** are those that occur in the period between symptom discovery and appraisal and initial medical consultation. A delay of more than three months is associated with lower survival (Jenner, Middleton, Webb, Oommen, & Bates, 2000), and most women seek care within five or six weeks of discovering a lump (Benedict et al., 1994; Lauver et al., 1995). Because women themselves detect most breast tumors (estimates range from 65% [Facione, Miaskowski, Dodd, & Paul, 2002] to 75% [Arndt et al., 2001]), many studies have focused on demographic or psychosocial characteristics that may predispose certain women to avoid screening mammography or to delay seeking care. For example, the use of screening mammography by women in Canada and the United States is positively associated with income and education (Katz et al., 2000; Selvin & Brett, 2003; Tatla et al.,

2003); education alone is positively associated with screening in Italy (Montella, Crispo, D'Aiuto, et al., 2001).

The predisposition to delay may exist prior to onset of symptoms. In an American community-based sample of 699 healthy women, 166 (24%) reported a strong likelihood to delay seeking medical attention for breast abnormalities (Facione et al., 2002). Characteristics of women who were more predisposed to delay included lower income, lower educational level, self-identification as African American or Latina, and perceived lack of access to health care. Women belonging to minority groups in the United States have a higher likelihood of presenting with late-stage cancer and a 20%–200% greater risk of mortality after diagnosis (Li et al., 2003). Others have found that low socioeconomic status is linked with late-stage disease at diagnosis (Richardson et al., 1992; Yabroff & Gordis, 2003). Half of the women with low incomes in one study reported barriers to seeking care such as time constraints, other commitments, and lack of knowledge about access to care (Lauver et al., 1995). Interestingly, one study demonstrated that gender-related issues such as competing family and workplace priorities also may distract middle-class women from seeking medical attention when they discover breast symptoms (Burgess, Hunter, & Ramirez, 2001).

Psychosocial factors have been found to influence care-seeking responses when women discover breast abnormalities. A history of major depression was linked with late-stage diagnosis in one American study (Desai, Bruce, & Kasl, 1999), but a British investigation found that neither adverse life experiences nor mood disorders were linked with delay (Burgess et al., 1998; Burgess, Ramirez, Smith, & Richards, 2000). Burgess et al. (1998) also found that low anxiety in relation to breast symptoms predicted delayed presentation. A Norwegian study elaborated further by demonstrating that women who delayed attention to operable breast tumors had higher levels of emotional control than those who sought early medical consultation (Burgess et al., 1998; Tjemland & Soreide, 2004). Supportive relationships and circumstances also enter into women's decisions to seek care: disclosure of a discovery of a breast abnormality to another person is negatively associated with delay, particularly when others advise prompt medical attention (Burgess et al., 1998).

Collectively, the results of the studies indicate that women's psychological well-being, subjective beliefs, and knowledge about cancer may enter into their decisions to initiate contact with the healthcare system when they detect breast abnormalities. They demonstrated that women's demographic characteristics are linked with their access to and progress through the system of cancer care. However, they do not fully explain how constraints or supports are activated for women with various demographic characteristics. Furthermore, the extant literature fails to endow women with complex powers of agency. They either act by seeking care or delay action. Microsocial issues such as time pressures, competing sites of responsibility, and the absence of a confidant may texture the decision to act, but they are not contextualized by including macrosocial concepts such as gender or class relations.

**Practitioner-related delays** occur during the interval between the first consultation when a breast abnormality is noted and the point when a definitive diagnosis is made or treatment begins (Caplan & Helzlsouer, 1992; Facione, 1993; Ramirez et al., 1999). Several studies have indicated that practitioner-related

delays result from judgments about suspicious signs. The women at greatest risk for practitioner-related delays have atypical symptoms, have small tumors, work full-time, and have higher educational levels (Arndt et al., 2003; Barber et al., 2004). The first two characteristics suggest the possibility of erroneous reassurance of benign disease. Overreliance on mammography, despite the known possibility of false-negative findings, is an example of the problem (Goodson & Moore, 2002; Tarter, Pace, Frost, & Bernstein, 1999). Physicians may be more likely to delay action on women's self-discovered breast lumps, possibly because of the known higher false-positive rates for breast self-examination (Goodson & Moore). Age also has been negatively associated with provider delays in many studies, suggesting less attention to assessment of younger women, who may be considered at lower risk (Barber et al.; Haas, Cook, Puopolo, Burstin, & Brennan, 2000; Kroman et al., 2000; Lerman et al., 1991; Montella, Crispo, Botti, et al., 2001; Sainsbury, Johnston, & Haward, 1999).

Provider error and misinterpretation of symptoms are difficult to assess because of the lack of objective records, but some evidence exists that continuity of care may avert delays (Barber et al., 2004), and having a usual source of care is a predictor of access to screening mammography (Selvin & Brett, 2003). Practitioner-related delays may not result in increased risk of mortality if decisions to delay are well founded (Afzelius et al., 1994; Richards et al., 1999; Sainsbury et al., 1999).

The research on practitioner-related delays emphasizes the appropriateness of practitioners' decisions to delay or expedite further investigation of women's breast symptoms, thus limiting the analytic range of professional agency or activity under study. In the studies, professional decisions are not situated within a broader context of social relations that privilege healthcare providers and disadvantage some of the women who consult them. Individual providers do not create such relations, but they may reproduce them during their interactions with patients (Waitzkin, 1989).

**System-related delays** are of particular concern in the context of Canadian healthcare reform, with changes to structures of care delivery associated with retraction of government funding. Access to resources for diagnosis and treatment may be limited geographically (Benk et al., 1998; Mackillop et al., 1994; Miller, Benk, Rajan, & Dobkin, 1999) or used ineffectively (Mayo et al., 2001). Services and programs may not be sensitive to issues such as impaired mobility, the needs of non-English-speaking patients, the problems associated with aging, or the need for more flexible service availability (Bottorff et al., 1998; Gultiz, Hernandez, & Kent, 1998; Iezzoni, McCarthy, Davis, & Siebens, 2000; Naish, Brown, & Denton, 1994; Peek, 2003). The coordination of care also may be problematic in some regions; one study showed that patients in seven Canadian provinces visited multiple providers and facilities for diagnosis following abnormal screening mammograms (Olivetto et al., 2001). This is costly in terms of time and money. The same study indicated that ineffective communication between sites subjected some women to fragmented care, whereas others had less difficulty when designated providers coordinated their progress through the system. Women who underwent biopsies waited a median of 9.6 weeks and as long as 15 weeks for diagnosis. Such intervals are emotionally disruptive for women and their families (Deane & Degner, 1998).

Studies indicate systemic influences on diagnostic delays. Such influences especially affect women who are disadvantaged by mobility impairments, low income, or multiple and conflicting responsibilities. However, the healthcare system is the sole structural focus of most existing studies. The studies do not conceptualize or analyze the social and material dimensions of structures in which the healthcare system is embedded. Furthermore, little attention has been paid to the ways that structural relations of gender, class, race, or age are activated, resisted, or reproduced during encounters with the healthcare system.

In summary, current descriptions of delay focus on patient, provider, and system factors but do not draw links among the levels. In terms of patients, the association of diagnostic delays with characteristics such as income, education, age, and symptom types suggests which women will experience delays. Providers may consciously or unconsciously make note of demographic or presenting characteristics in deciding whether to pursue or expedite further diagnostic study of breast symptoms. Gender, social class, ethnoracial, and age disparities between providers and patients may influence interpersonal dimensions of decision making and diagnosis. In the Canadian context of universal access, evidence exists that women may experience inequitable system-related delays and barriers. The explanations, based as they are on the original tripartite conceptual framework, suggest the importance of individual agency, professional agency, and contextualizing social structure. Yet they fail to fully elaborate the three fundamental elements and their (apparently) dynamic relationships with one another. Theorizing the links between micro- and macro-level spheres is an important project for nurses because it facilitates exploration of the mechanisms underlying social inequalities in healthcare provision (Scambler, 2001; Williams, 2003). Moreover, in that existing explorations look for deterministic links—for example, between educational attainment and breast cancer screening—they fail to address the ways in which behaviors are mediated by intentional, interpretive human agency within the broader structures and processes of cancer care. To address those problems, drawing on philosophical and theoretical perspectives from the social sciences is fruitful because diagnostic and treatment delays in breast cancer are deeply implicated within social structures and practices.

## Critical Realism

Critical realism offers a philosophy of science that is associated most closely with the foundational work of Roy Bhaskar (1975) and addresses several problems associated with theorizing and researching the social world. Conceptualizing the relationship between social structures and human agency is one such issue that is especially pertinent to the study of health inequalities because it brings society closer to developing explanatory accounts of each individual's fate and experiences in society. Although critical realists have important differences of opinion, Archer (2003) noted that critical realists are in agreement that structure and agency are "distinct strata of reality, as the bearers of quite different properties and powers" (p. 2) and that attention should be focused on the interplay between the two. It flows from that statement that social structural factors do not fully determine the health of individuals but provide the conditions that constrain or facilitate health-related activities. Hence, the impingements

of social structure on individual health and well-being are of as much interest as the tactics devised by individuals to deal with the impingements.

Furthermore, structure has temporal priority over agency in this formulation—although social structure is constructed and reproduced through human agency, individuals are born into contexts which they did not produce (Archer, 2003). According to Bourdieu (1990), such involuntary placement promotes the deep inculcation of dispositions to act in ways that perpetuate existing cultural or social arrangements. Much of this learning occurs at a prereflexive or assumptive level, contributing to unquestioned, habitual repertoires of behavior. In this manner, individuals may embody or enact structure; thus, their individual powers are channeled or coordinated with those of others in similar or different social positions to maintain status quo (Bourdieu). Yet Archer cautioned against adopting an “oversocialized” account of human agency, emphasizing that individuals do have causal powers and can creatively devise their own projects and courses of action in the social and material contexts of their everyday lives. It is such creative agency that renders society an “open” system, prone to periods of gradual or even tumultuous change (Williams, 1999).

Critical realists propose that social structure operates at many sites and levels and that events experienced at the individual level may be the culmination of numerous, perhaps even countervailing, extralocal influences (Scambler, 2001). However, complex phenomena cannot be understood fully based on direct sensory experiences alone, and they exist independent of people’s knowledge of them. Consequently, one major tenet of critical realism is that reality is stratified; it distinguishes among three domains: the empirical, the actual, and the real (Bhaskar, 1975; see also Archer, 2003; Scambler; Williams, 1999).

The **empirical** is the domain of experience, or all that may be directly observed or perceived. However, not all events can be directly observed, and events may be partially or differently perceived depending on the standpoint of the observer (Smith, 1987, 1999). Thus, the domain of the **actual** encompasses events as they exist or actually happen, regardless of whether or how they are experienced. Actual events are triggered by “generative mechanisms,” or forces that tend to produce events in the world and that are constituted in the third domain, the **real**. The real is whatever naturally or socially exists, including, but going beyond, experiences and events. Hence, critical realism acknowledges that much of the social world exists independent of subjective or immediate knowledge or beliefs, that human activity has physical and structural impingements, and that humans engage in a range of spontaneous, intentional, and conventional behaviors vis-à-vis those structures (Scambler, 2001; Williams, 1999, 2003). This means that behaviors and outcomes are contextualized, are patterned in a semiregular manner, and are not fixed or static (Lawson, 1998). The interpretation of causality has particular relevance for women with breast cancer, because it allows that care may be delayed or expedited at a number of individual steps, suggesting pathways to diagnosis and treatment that may vary considerably from woman to woman. Another related point is that the events surrounding the pathways to diagnosis and treatment are triggered by underlying generative mechanisms that often are difficult to discern. In the study of social phenomena, generative mechanisms may

not even occur synchronously with the events they stimulate (Lawson; Scambler).

Obviously, conceptualizing and understanding the activation of generative mechanisms are central challenges in critical realist studies of health inequality (Coburn, 2004; Muntaner, Lynch, & Oates, 1999; Scambler, 2001; Wilkinson, 1999). Scambler proposed that social relations of class form one generative mechanism that is embedded in the structures of society and suggested that the mechanism is linked with multiple “flows of capital” (p. 40), which are responsible for persistent social patterns of health inequality. His work helps to refine understanding of context, going beyond previous discussions of conditions that either constrain or enable human agency.

## Generative Mechanisms of Inequitable Access to Health Care

Scambler (2001) drew on the work of Clement and Myles (1994) to show that real class relations go beyond the composite measures of socioeconomic status commonly employed in population-based health research. Rather, he argued that real class relations concern social positioning in regard to the command or management of resources (capital), particularly those related to economic productivity. Social class, as a generative mechanism, is enacted or realized through flows of capital that are “typically *variable*, and arguably of particular salience for specific health problems at *critical periods* of the life course” (Scambler, p. 40). He identified six types of capital flow in connection with class: biologic, psychological, social, cultural, spatial, and material. Furthermore, he noted that flows of capital also may be affected by other real relations, such as social relations of gender or racialization. Disrupted or abundant flows of various forms of capital create conditions of constraint or enablement that contribute to, but do not necessarily determine, access to breast cancer care.

**Biologic capital** may be affected by material conditions prior to birth. For example, infants with low birth weight are more common in low-income families and are more susceptible to illness in adulthood (Scambler, 2001). Hereditary cancer risk is not linked with patterns of social or material disadvantage, yet the presence or absence of other forms of capital may contribute to biologic health outcomes in affected women. For example, women with similar hereditary risks of breast cancer may engage differentially in health behaviors based on the outcomes of witnessed breast cancer events such as changes in the sexuality or self-image of women with breast cancer whom they have known (Rees, Fry, & Cull, 2001). Such **psychological capital**, or the manner of responding to adversity, also may be shaped by relations of class, gender, or ethnicity. Facione et al. (2002) found that women with low incomes and those who identified themselves as African American or Latina were more likely to have fatalistic attitudes about developing or dying from breast cancer and, therefore, were more likely to delay seeking health care on discovery of breast abnormalities. In two other studies, Latina women held cultural explanatory models of illness that emphasized the physical or divine predestination of breast cancer and that actively mitigated against engaging in detection behaviors such as self-examination or presenting for mammography (Borrayo, Buki & Feigal, 2005; Borrayo & Jenkins, 2001). Lay beliefs concerning the controllability and cure of illness

on one hand and the engagement in particular health practices on the other may reflect the shaping of personal behavior through resignation to, or anticipation of, structurally determined health inequities (Blaxter, 1997; Popay et al., 2003; Popay, Williams, Thomas, & Gatrell, 1998).

Flows of **social capital** include integration in social networks of support. Although Burgess et al. (1998) found that disclosure to another person of the discovery of a breast abnormality is negatively associated with delay if the confidant advises prompt medical attention, other researchers have found that practices of gendered silence around matters related to breast or sexual health in all cultural communities may isolate women from peer advice or support (Bottorff et al., 1998; Phillips, Cohen, & Moses, 1999). Barriers to screening resulting from cultural values or meanings surrounding modesty have been identified in women of South Asian (Bottorff et al.; Johnson et al., 1999), Tamil (Meana, Bunston, George, Wells, & Rosser, 2001), Islamic (Rajaram & Rashidi, 1999; Underwood, Shaikha, & Bakr, 1999), African American (Thompson, Montano, Mahloch, Mullen, & Taylor, 1997), and Hispanic descent (Borrayo et al., 2005; Borrayo & Jenkins, 2001). All women's values regarding breasts and breast health practices are deeply embedded in culturally learned assumptions, and they are embodied and reproduced in daily life. Because women may perceive treatments for breast cancer as traumatic and possibly disfiguring (Borrayo et al.; Langelier & Sullivan, 1998), they may interpret screening activities as threatening, with the potential to precipitate breast mutilation or loss (Borrayo et al.; Vahabi & Gastaldo, 2003). In this context, women's "irrational" choices to avoid screening may be viewed as "intelligible" health-related decisions that are well in keeping with social prescriptions of gender in which breasts are highly valued.

Education is a powerful form of **cultural capital**, beginning with early experiences of socialization and progressing to formal educational attainment (Scambler, 2001). Flows of cultural capital influence a person's ability to seek out, interpret, and act on health information, as well as the capacity to interact with healthcare providers. In other words, health literacy is connected strongly with flows of cultural capital (Kickbusch, 2001; Nutbeam, 2001). Health literacy and educational attainment have been positively linked with attendance for screening mammography (Guerra, Krumholz, & Shea, 2005; Katz et al., 2000). Furthermore, research and computer skills have been identified as critical to enhancing the investigation of breast cancer treatment options (Anglin, 1997).

**Spatial capital** is receiving increasing attention as researchers realize that places contour health in many ways. Glazier et al. (2004) compared rates of mammography use in four groups of census tract areas in Toronto, Canada. The lowest rates of mammography use were found in a low-income and high-immigration area that stretched across the inner-city core. The geographic clustering effects illustrate the need for careful study of neighborhood characteristics prior to implementing interventions designed to promote screening. They also illustrate that access barriers persist in Canada, despite a system of universal and publicly funded health care. Barry and Breen (2005) highlighted inner-city health care in the United States, noting that the geographic concentration of poverty and social distress in such neighborhoods predicts the likelihood of a woman receiving a late-stage diagnosis. The authors

concluded that, in the American healthcare market, low profit margins discourage providers from locating in extremely poor and socially distressed neighborhoods.

The flow of **material capital** is integrally linked with that of spatial capital, because interrupted access to material or income resources may lead to residence in more distressed residential areas or homelessness. Limited income may curtail access to a consistent source of health care, which, in turn, has been linked with low use of screening mammography (Lauver et al., 1995; Selvin & Brett, 2003) and late-stage diagnosis of breast cancer (Arndt et al., 2001; Yabroff & Gordis, 2003). It also may affect women's capacity to secure certain forms of treatment (Bradley, Given, & Roberts, 2002; Kasper, 2000). Finally, a woman's experiences with diagnosis and treatment are textured by the material circumstances in which she lives. Worry about inadequate income or even the pressures of a working life, which enables her to secure a good income, may distract her from seeking care or may negatively influence her quality of life while receiving treatment (Burgess et al., 2001; Kasper).

In Scambler's (2001) formulation, class (and other) relations of inequality serve as generative mechanisms that contribute to disparities in access to breast cancer care. Scambler's ideas facilitate a comparative analysis of the barriers and resources encountered by individual women. However, as noted previously, critical realism acknowledges the situated, knowledgeable individual who is actively engaged in the circumstances and whose actions may either maintain or transform social structures. Although generative mechanisms arise from structures and are contextually contingent, they always work through people's actions (Moren & Blom, 2003). Thus, Archer's (2003) elaboration of human agency is a pivotal component of this evolving discussion.

## Agency and the Conditions of Everyday Life

Put simply, human agency is the capacity to produce an outcome or an effect (Nash, 1999). Whereas Scambler (2001) explored the evident links between healthcare inequalities and disproportionate flows of several forms of capital, Bartley (2003) reminded that the central problem is not merely the unequal distribution of the kinds or amounts of resources available to people but also the resultant differential effects on human agency. Furthermore, Sen (1993) argued that income alone is not the only key to improving health and life expectancy among poor women. He cited the success of international development projects that combined enabling resources such as literacy, opportunities to participate more fully in public life, and accessible health care. Hence, attention is turned to the sites or moments where capital flows are converted into capabilities, which moves the discussion still closer to an explanation of how inequitable access to diagnosis and treatment persists in the care of women with breast cancer.

The effects produced through human agency may alternately serve to transform or reproduce and perpetuate social structures (Archer, 2003). However, human perceptions of structures and resultant actions undertaken in deliberate as well as unconscious responses to perceptions may be reflexive and skillful, as well as "corrigible and limited" (Bhaskar, 1998, p. xvi). Through inner dialogue, agents exercise their

own emergent powers or personal capabilities to decide courses of action within the limits of their own dispositions and social circumstances (Archer). For example, despite the prevalent biomedical depiction of breast cancer as a treatable condition if detected promptly, many women draw on social and cultural capital that shapes their own understandings of the fates of women who develop breast cancer (Bailey, Erwin, & Belin, 2000; Phillips et al., 1999; Savage & Clarke, 1998). Personal understandings of breast cancer include perceived susceptibility, self-efficacy, fatalism, or confidence in diagnostic and therapeutic procedures. They may shape women's risk perceptions and predisposition to delay, as well as their interactions with providers (Katapodi, Facione, Humphreys, & Dodd, 2005; Nosarti et al., 2000).

Moreover, the perception of structural conditions as constraints or enablements depends on the individual intentions or projects that they contextualize.

Constraints and enablements do not possess an intrinsic capacity for constraining or enabling in abstraction. For anything to exert the power of a constraint or enablement, it has to stand in a *relationship* such that it obstructs or aids the achievement of some specific agential enterprise (Archer, 2003, p. 5).

Hence, women's internal conversations (and discussions with supportive others) are of central importance, for at that site or moment, constraints and enablements are realized and activated. The conversations may not necessarily take the form of overt deliberations about barriers and supportive resources, *per se*. Indeed, the assumptive nature of dispositions to act in particular ways may render some decisions prereflexive, in compliance with social practices that are deeply embedded in particular contexts (Bourdieu, 1990). For example, a gendered emphasis on homemaking or family caregiving responsibilities may lead women to automatically prioritize the needs of others over their own.

However, compliance is not the only possible course of action. Women are not necessarily passive, consistent, or homogenous, nor do they share common goals. Individual subjectivity is highly dynamic (Archer, 2003), and individual projects frequently are modified following clarification of contextual feasibility and desirability of possible outcomes. Alternatives to compliance may include evasion, circumvention, resistance, or subversion. Moreover, women do not ponder objective flows of capital; they subjectively size up the features of their particular situations. Through a qualitative investigation, Archer found that such internal conversation takes different forms depending on individual patterns of orientation toward life circumstances and approaches to personal goals. Her work indicated that in the accounts offered by people to describe their projects and strategic objectives, references to constraints and supports are readily discernible. Similar interpretive analysis of the accounts using abductive or retroductive techniques could bridge the epistemic gap between experiential or lay accounts situated in the realm of the empirical and sociologic accounts of the social structural domain of the real (Blaikie, 1993).

Healthcare providers are agents, too, and they play an important role in women's personal health when breast symptoms appear. But whereas women with breast symptoms are "primary agents" who act on their own behalf, healthcare providers are "corporate agents" (Archer, 2003, p. 133) and op-

erate with reference to the organizational structures of health care. Their reflexive deliberations are pooled and codified as textually based discourses that prescribe actions to be taken under particular circumstances (Smith, 1990, 1999). The institutional activities of corporate agents simultaneously construct and reproduce discourse, drawing on and reinforcing the generative mechanisms of social structure in the process (Smith, 1990). Practice guidelines for breast cancer care provide one example of a discursive product of corporate agency. Guidelines related to breast self-examination have been under scrutiny, garnering intense media attention, which creates a climate of uncertainty and concern among practitioners and consumers alike (Baxter, 2001; Charatan, 2002; Nekhlyudov & Fletcher, 2001). At this nexus, the complexities of social agency become clear; the corporate agency of policy makers, researchers, practitioners, and media journalists creates only part of the circumstances that enter into women's internal conversations about their breast health.

Furthermore, healthcare professionals act within a stratified social order that positions them favorably as bearers of specialized information. Women who are newly diagnosed with breast cancer value physicians' willingness to listen and assess individual information needs (Harris & Templeton, 2001). They reportedly feel that much is at stake when treatment options are reviewed; hence, physicians' support and assistance with decision making help to allay fears of selecting the wrong treatment options (Charles, Whelan, Gafni, Reyno, & Redko, 1998). However, some women perceive a lack of informational support from physicians. Older women have reported difficulties in communicating with physicians about their treatment for breast cancer (Crooks, 2001). Low-income women with breast cancer have described playing a passive role in decision making and being provided with few options and insufficient information (McVea, Minier, & Palensky, 2001).

In summary, critical realism draws attention to a stratified social reality, with emphasis on generative mechanisms that form the basis for physical and structural impingements on human activity (Scambler, 2001; Williams, 1999, 2003). It encourages interest in the range of spontaneous, intentional, and conventional human behaviors that activate constraining or enabling forces (Archer, 2003). However, this perspective on the social world also opens the possibility of transformative corporate and primary agency to promote access to diagnosis and treatment among women with breast cancer. It also indicates that future efforts must focus not only on flows of multiple forms of capital or resources available to women but also on the capabilities that they support or undermine.

## Conclusions

At present, a lack of empirical healthcare research exists using a critical realist framework in cancer care as well as other areas (Appleton & King, 2002). Yet the appeal of critical realism to nurse clinicians and researchers resides in its recognition of the multiple structural and social impingements on lay and professional activities throughout the course of breast cancer care. Critical realism acknowledges the legitimacy—and fallibility—of different perspectives among healthcare professionals and patients, thus encouraging a variety of methodologic approaches (Clark, 2003). Furthermore,

its stratified approach draws attention to the generative, causal mechanisms that underpin decision making around evidence and assessment, as well as patient and clinician agency and intervention (McEvoy & Richards, 2003; McGuire, 2005). Its tenets provide a useful framework for understanding how diagnostic and treatment delays in breast cancer are linked in multifaceted ways with social inequalities.

Based on a critical realist analysis, the authors argue that delayed or expedited access to breast cancer care cannot be linked simplistically with women's demographic characteristics such as income or educational attainment. Further work is needed to move beyond the empirical domain into an investigation of the real relations that condition the lives of women with various income levels and educational attainments. Additionally, critical realism facilitates a metho-

dologic pluralism that is particularly well suited for nursing theory, research, and practice, which strives to understand the complex processes involved in cancer care. The focus on semiregular patterns rather than generalizations (Lawson, 1998) provides the basis for tailored, individualized approaches to intervention and policy. Finally, this analysis reinforces that access to the necessities of health and health care must be understood more broadly and conceptualized as a matter of converging and contextually activated forces, many of which originate from sites beyond the everyday experiences of healthcare professionals and the women who seek their help.

**Author Contact:** Jan Angus, RN, PhD, can be reached at jan.angus@utoronto.ca, with copy to editor at ONFEditor@ons.org.

## References

- Afzelius, P., Zedeler, K., Sommer, H., Mouridsen, H.T., & Blichert-Toft, M. (1994). Patient's and doctor's delay in primary breast cancer. Prognostic implications. *Acta Oncologica*, 33, 345-351.
- Andersen, B.L., & Cacioppo, J.T. (1995). Delay in seeking a cancer diagnosis: Delay stages and psychophysiological comparison processes. *British Journal of Social Psychology*, 34(Pt. 1), 33-52.
- Anglin, M.K. (1997). Working from the inside out: Implications of breast cancer activism for biomedical policies and practices. *Social Science and Medicine*, 44, 1403-1415.
- Appleton, J.V., & King, L. (2002). Journeying from the philosophical contemplation of constructivism to the methodological pragmatics of health services research. *Journal of Advanced Nursing*, 40, 641-648.
- Archer, M.S. (2003). *Structure, agency and the internal conversation*. Cambridge, England: Cambridge University Press.
- Arndt, V., Sturmer, T., Stegmaier, C., Ziegler, H., Becker, A., & Brenner, H. (2003). Provider delay among patients with breast cancer in Germany: A population-based study. *Journal of Clinical Oncology*, 21, 1440-1446.
- Arndt, V., Sturmer, T., Stegmaier, C., Ziegler, H., Dhom, G., & Brenner, H. (2001). Socio-demographic factors, health behavior and late-stage diagnosis of breast cancer in Germany: A population-based study. *Journal of Clinical Epidemiology*, 54, 719-727.
- Bailey, E.J., Erwin, D.O., & Belin, P. (2000). Using cultural beliefs and patterns to improve mammography utilization among African-American women: The Witness Project. *Journal of the National Medical Association*, 92(3), 136-142.
- Barber, M.D., Jack, W., & Dixon, J.M. (2004). Diagnostic delay in breast cancer. *British Journal of Surgery*, 91, 49-53.
- Barry, J., & Breen, N. (2005). The importance of place of residence in predicting late-stage diagnosis of breast or cervical cancer. *Health and Place*, 11(1), 15-29.
- Bartley, M. (2003). Health inequality and societal institutions. *Social Theory and Health*, 1(2), 108-129.
- Baxter, N. (2001). Preventive health care, 2001 update: Should women be routinely taught breast self-examination to screen for breast cancer? *CMAJ*, 164, 1837-1846.
- Benedict, S., Williams, R.D., & Baron, P.L. (1994). Recalled anxiety: From discovery to diagnosis of a benign breast mass. *Oncology Nursing Forum*, 21, 1723-1727.
- Benk, V., Ho, V., Fortin, P.R., Zhang, G., Levinton, C., & Freeman, C.R. (1998). Predictors of delay in starting radiation treatment for patients with early stage breast cancer. *International Journal of Radiation Oncology, Biology, Physics*, 41, 109-115.
- Bhaskar, R. (1975). *A realist theory of science*. Boston: Brill Academic Publishers.
- Bhaskar, R. (1998). General introduction. In M. Archer, R. Bhaskar, A. Collier, T. Lawson, & A. Norrie (Eds.), *Critical realism: Essential readings* (pp. ix-xxiv). New York: Routledge.
- Blaikie, N. (1993). *Approaches to social enquiry*. Cambridge, England: Polity Press.
- Blaxter, M. (1997). Whose fault is it? People's own conceptions of the reasons for health inequalities. *Social Science and Medicine*, 44, 747-756.
- Borrayo, E.A., Buki, L.P., & Feigal, B.M. (2005). Breast cancer detection among older Latinas: Is it worth the risk? *Qualitative Health Research*, 15, 1244-1263.
- Borrayo, E.A., & Jenkins, S.R. (2001). Feeling healthy: So why should Mexican-descent women screen for breast cancer? *Qualitative Health Research*, 11, 812-823.
- Bottorff, J.L., Johnson, J.L., Bhagat, R., Grewal, S., Balneaves, L.G., Clarke, H., et al. (1998). Beliefs related to breast health practices: The perceptions of South Asian women living in Canada. *Social Science and Medicine*, 47, 2075-2085.
- Bourdieu, P. (1990). *The logic of practice*. Cambridge, England: Polity Press.
- Bradley, C.J., Given, C.W., & Roberts, C. (2002). Race, socioeconomic status, and breast cancer treatment and survival. *Journal of the National Cancer Institute*, 94, 490-496.
- Burgess, C., Hunter, M.S., & Ramirez, A.J. (2001). A qualitative study of delay among women reporting symptoms of breast cancer. *British Journal of General Practice*, 51, 967-971.
- Burgess, C.C., Ramirez, A.J., Richards, M.A., & Love, S.B. (1998). Who and what influences delayed presentation in breast cancer? *British Journal of Cancer*, 77, 1343-1348.
- Burgess, C.C., Ramirez, A.J., Smith, P., & Richards, M.A. (2000). Do adverse life events and mood disorders influence delayed presentation of breast cancer? *Journal of Psychosomatic Research*, 48, 171-175.
- Canadian Cancer Society/National Cancer Institute of Canada. (2006). *Canadian cancer statistics 2006*. Toronto, Canada: Author.
- Caplan, L.S., & Helzlsouer, K.J. (1992). Delay in breast cancer: A review of the literature. *Public Health Reviews*, 20(3-4), 187-214.
- Charatan, F. (2002). The great American mammography debate. *BMJ*, 324, 432.
- Charles, C., Whelan, T., Gafni, A., Reyno, L., & Redko, C. (1998). Doing nothing is no choice: Lay constructions of treatment decision-making among women with early-stage breast cancer. *Sociology of Health and Illness*, 20(1), 71-95.
- Clark, A.M. (2003). "It's like an explosion in your life": Lay perspectives on stress and myocardial infarction. *Journal of Clinical Nursing*, 12, 544-553.
- Clement, W., & Myles, J. (1994). *Relations of ruling: Class and gender in postindustrial societies*. Montreal, Canada: McGill-Queen's University Press.
- Coburn, D. (2004). Beyond the income inequality hypothesis: Class, neoliberalism, and health inequalities. *Social Science and Medicine*, 58, 41-56.

- Crooks, D.L. (2001). Older women with breast cancer: New understandings through grounded theory research. *Health Care for Women International*, 22, 99–114.
- Deane, K.A., & Degner, L.F. (1998). Information needs, uncertainty, and anxiety in women who had a breast biopsy with benign outcome. *Cancer Nursing*, 21, 117–126.
- Desai, M.M., Bruce, M.L., & Kasl, S.V. (1999). The effects of major depression and phobia on stage at diagnosis of breast cancer. *International Journal of Psychiatry in Medicine*, 29, 29–45.
- Facione, N.C. (1993). Delay versus help seeking for breast cancer symptoms: A critical review of the literature on patient and provider delay. *Social Science and Medicine*, 36, 1521–1534.
- Facione, N.C., Miskowski, C., Dodd, M.J., & Paul, S.M. (2002). The self-reported likelihood of patient delay in breast cancer: New thoughts for early detection. *Preventive Medicine*, 34, 397–407.
- Glazier, R.H., Creatore, M.I., Gozdyra, P., Matheson, F.I., Steele, L.S., Boyle, E., et al. (2004). Geographic methods for understanding and responding to disparities in mammography use in Toronto, Canada. *Journal of General Internal Medicine*, 19, 952–961.
- Goodson, W.H., III, & Moore, D.H., II. (2002). Causes of physician delay in the diagnosis of breast cancer. *Archives of Internal Medicine*, 162, 1343–1348.
- Guerra, C.E., Krumholz, M., & Shea, J.A. (2005). Literacy and knowledge, attitudes and behavior about mammography in Latinas. *Journal of Health Care for the Poor and Underserved*, 16, 152–166.
- Gulitz, E., Hernandez, M.B., & Kent, E.B. (1998). Missed cancer screening opportunities among older women: A review. *Cancer Practice*, 6, 289–295.
- Haas, J.S., Cook, E.F., Puopolo, A.L., Burstin, H.R., & Brennan, T.A. (2000). Differences in the quality of care for women with an abnormal mammogram or breast complaint. *Journal of General Internal Medicine*, 15, 321–328.
- Harris, S.R., & Templeton, E. (2001). Who's listening? Experiences of women with breast cancer in communicating with physicians. *Breast Journal*, 7, 444–449.
- Iezzoni, L.I., McCarthy, E.P., Davis, R.B., & Siebens, H. (2000). Mobility impairments and use of screening and preventive services. *American Journal of Public Health*, 90, 955–961.
- Jenner, D.C., Middleton, A., Webb, W.M., Oommen, R., & Bates, T. (2000). In-hospital delay in the diagnosis of breast cancer. *British Journal of Surgery*, 87, 914–919.
- Johnson, J.L., Bottorff, J.L., Balneaves, L.G., Grewal, S., Bhagat, R., Hilton, B.A., et al. (1999). South Asian women's views on the causes of breast cancer: Images and explanations. *Patient Education and Counseling*, 37, 243–254.
- Kasper, A.S. (2000). Barriers and burdens: Poor women face breast cancer. In A.S. Kasper & S.J. Ferguson (Eds.), *Breast cancer: Society shapes an epidemic* (pp. 183–212). New York: St. Martin's Press.
- Katapodi, M.C., Facione, N.C., Humphreys, J.C., & Dodd, M.J. (2005). Perceived breast cancer risk: Heuristic reasoning and search for a dominance structure. *Social Science and Medicine*, 60, 421–432.
- Katz, S.J., Zemencuk, J.K., & Hofer, T.P. (2000). Breast cancer screening in the United States and Canada, 1994: Socioeconomic gradients persist. *American Journal of Public Health*, 90, 799–803.
- Kickbusch, I.S. (2001). Health literacy: Addressing the health and education divide. *Health Promotion International*, 16, 289–297.
- Kroman, N., Jensen, M.B., Wohlfahrt, J., Mouridsen, H.T., Andersen, P.K., & Melbye, M. (2000). Factors influencing the effect of age on prognosis in breast cancer: Population based study [Comment]. *BMJ*, 320, 474–478.
- Langellier, K.M., & Sullivan, C.F. (1998). Breast talk in breast cancer narratives. *Qualitative Health Research*, 8, 76–94.
- Lauver, D., Coyle, M., & Panchmatia, B. (1995). Women's reasons for and barriers to seeking care for breast cancer symptoms. *Women's Health Issues*, 5, 27–35.
- Lawson, T. (1998). Economic science without experimentation. In M. Archer, R. Bhaskar, A. Collier, T. Lawson, & A. Norrie (Eds.), *Critical realism: Essential readings* (pp. 144–169). New York: Routledge.
- Lerman, C., Trock, B., Rimer, B.K., Boyce, A., Jepson, C., & Engstrom, P.F. (1991). Psychological and behavioral implications of abnormal mammograms. *Annals of Internal Medicine*, 114, 657–661.
- Li, C.I., Malone, K.E., & Daling, J.R. (2003). Differences in breast cancer stage, treatment, and survival by race and ethnicity. *Archives of Internal Medicine*, 163, 49–56.
- Libstug, A.R., Moravan, V., & Aitken, S.E. (1998). Results from the Ontario breast screening program, 1990–1995. *Journal of Medical Screening*, 5(2), 73–80.
- Mackillop, W.J., Fu, H., Quirt, C.F., Dixon, P., Brundage, M., & Zhou, Y. (1994). Waiting for radiotherapy in Ontario. *International Journal of Radiation Oncology, Biology, Physics*, 30, 221–228.
- Mayo, N.E., Scott, S.C., Shen, N., Hanley, J., Goldberg, M.S., & MacDonald, N. (2001). Waiting time for breast cancer surgery in Quebec. *CMAJ*, 164, 1133–1138.
- McEvoy, P., & Richards, D. (2003). Critical realism: A way forward for evaluation research in nursing? *Journal of Advanced Nursing*, 43, 411–420.
- McGuire, W.L. (2005). Beyond EBM: New directions for evidence-based public health. *Perspectives in Biology and Medicine*, 48, 557–569.
- McVea, K., Minier, W., & Palensky, J. (2001). Low-income women with early-stage breast cancer: Physician and patient decision-making styles. *Psycho-Oncology*, 10, 137–146.
- Meana, M., Bunston, T., George, U., Wells, L., & Rosser, W. (2001). Influences on breast cancer screening behaviors in Tamil immigrant women 50 years old and over. *Ethnicity and Health*, 6, 179–188.
- Miller, A., Benk, V., Rajan, R., & Dobkin, P. (1999). The burden of waiting. *Current Oncology*, 3(6), 188.
- Montella, M., Crispo, A., Botti, G., De Marco, M., de Bellis, G., Fabbrocini, G., et al. (2001). An assessment of delays in obtaining definitive breast cancer treatment in southern Italy. *Breast Cancer Research and Treatment*, 66, 209–215.
- Montella, M., Crispo, A., D'Aiuto, G., De Marco, M., de Bellis, G., Fabbrocini, G., et al. (2001). Determinant factors for diagnostic delay in operable breast cancer patients. *European Journal of Cancer Prevention*, 10, 53–59.
- Moren, S., & Blom, B. (2003). Explaining human change: On generative mechanisms in social work practice. *Journal of Critical Realism*, 2(1), 37–60.
- Muntaner, C., Lynch, J., & Oates, G.L. (1999). The social class determinants of income inequality and social cohesion. *International Journal of Health Services*, 29, 699–732.
- Naish, J., Brown, J., & Denton, B. (1994). Intercultural consultations: Investigation of factors that deter non-English speaking women from attending their general practitioners for cervical screening. *BMJ*, 309, 1126–1128.
- Nash, R. (1999). What is real and what is realism in sociology? *Journal for the Theory of Social Behaviour*, 29, 445–466.
- Nekhlyudov, L., & Fletcher, S.W. (2001). Is it time to stop teaching breast self examination [Commentary]? *CMAJ*, 164, 1851–1852.
- Nosarti, C., Crayford, T., Roberts, J.V., Elias, E., McKenzie, K., & David, A.S. (2000). Delay in presentation of symptomatic referrals to a breast clinic: Patient and system factors. *British Journal of Cancer*, 82, 742–748.
- Nutbeam, D. (2001). Health literacy as a public health goal: A challenge for contemporary health education and communication strategies into the 21st century. *Health Promotion International*, 15, 259–267.
- Oliveria, S.A., Christos, P.J., Halpern, A.C., Fine, J.A., Barnhill, R.L., & Berwick, M. (1999). Patient knowledge, awareness, and delay in seeking medical attention for malignant melanoma. *Journal of Clinical Epidemiology*, 52, 1111–1116.
- Olivotto, I.A., Bancej, C., Goel, V., Snider, J., McAuley, R.G., Irvine, B., et al. (2001). Waiting times from abnormal breast screen to diagnosis in 7 Canadian provinces [Comment]. *CMAJ*, 165, 277–283.
- Peek, M.E. (2003). Screening mammography in the elderly: A review of the issues. *Journal of the American Medical Women's Association*, 58, 191–198.
- Phillips, J.M., Cohen, M.Z., & Moses, G. (1999). Breast cancer screening and African American women: Fear, fatalism, and silence. *Oncology Nursing Forum*, 26, 561–571.
- Popay, J., Bennett, S., Thomas, C., Williams, G., Gatrell, A., & Bostock, L. (2003). Beyond 'beer, fags, egg and chips?' Exploring lay understand-

- ings of social inequalities in health. *Sociology of Health and Illness*, 25, 1–23.
- Popay, J., Williams, G., Thomas, C., & Gatrell, A. (1998). Theorising inequalities in health: The place of lay knowledge. *Sociology of Health and Illness*, 20, 619–644.
- Rajaram, S.S., & Rashidi, A. (1999). Asian-Islamic women and breast cancer screening: A socio-cultural analysis. *Women and Health*, 28(3), 45–58.
- Ramirez, A.J., Westcombe, A.M., Burgess, C.C., Sutton, S., Littlejohns, P., & Richards, M.A. (1999). Factors predicting delayed presentation of symptomatic breast cancer: A systematic review [Comment]. *Lancet*, 353, 1127–1131.
- Rees, G., Fry, A., & Cull, A. (2001). A family history of breast cancer: Women's experiences from a theoretical perspective. *Social Science and Medicine*, 52, 1433–1440.
- Richards, M.A., Smith, P., Ramirez, A.J., Fentiman, I.S., & Rubens, R.D. (1999). The influence on survival of delay in the presentation and treatment of symptomatic breast cancer. *British Journal of Cancer*, 79, 858–864.
- Richardson, J.L., Langholz, B., Bernstein, L., Burciaga, C., Danley, K., & Ross, R.K. (1992). Stage and delay in breast cancer diagnosis by race, socioeconomic status, age and year. *British Journal of Cancer*, 65, 922–926.
- Safer, M.A., Tharps, Q.J., Jackson, T.C., & Leventhal, H. (1979). Determinants of three stages of delay in seeking care at a medical clinic. *Medical Care*, 17, 11–29.
- Sainsbury, R., Johnston, C., & Haward, B. (1999). Effect on survival of delays in referral of patients with breast-cancer symptoms: A retrospective analysis. *Lancet*, 353, 1132–1135.
- Savage, S.A., & Clarke, V.A. (1998). Older women's illness representations of cancer: A qualitative study. *Health Education Research*, 13, 529–544.
- Scambler, G. (2001). Critical realism, sociology and health inequalities: Social class as a generative mechanism and its media of enactment. *Journal of Critical Realism*, 4(1), 35–42.
- Selvin, E., & Brett, K.M. (2003). Breast and cervical cancer screening: Sociodemographic predictors among white, black, and Hispanic women. *American Journal of Public Health*, 93, 618–623.
- Sen, A. (1993). The economics of life and death. *Scientific American*, 268(5), 40–47.
- Smith, D. (1987). *The everyday world as problematic: A feminist sociology*. Toronto, Canada: University of Toronto Press.
- Smith, D. (1990). *The conceptual practices of power*. Toronto, Canada: University of Toronto Press.
- Smith, D. (1999). *Writing the social: Critique, theory, and investigations*. Toronto, Canada: University of Toronto Press.
- Tartter, P.I., Pace, D., Frost, M., & Bernstein, J.L. (1999). Delay in diagnosis of breast cancer. *Annals of Surgery*, 229, 91–96.
- Tatla, R.K., Paszat, L.F., Bondy, S.J., Chen, Z., Chiarelli, A.M., & Mai, V. (2003). Socioeconomic status and returning for a second screen in the Ontario breast screening program. *Breast*, 12, 237–246.
- Thompson, B., Montano, D.E., Mahloch, J., Mullen, M., & Taylor, V. (1997). Attitudes and beliefs toward mammography among women using an urban public hospital. *Journal of Health Care for the Poor and Underserved*, 8, 186–201.
- Tjemland, L., & Soreide, J.A. (2004). Operable breast cancer patients with diagnostic delay—Oncological and emotional characteristics. *European Journal of Surgical Oncology*, 30, 721–727.
- Underwood, S.M., Shaikha, L., & Bakr, D. (1999). Veiled yet vulnerable. Breast cancer screening and the Muslim way of life. *Cancer Practice*, 7, 285–290.
- Vahabi, M., & Gastaldo, D. (2003). Rational choice(s)? Rethinking decision-making on breast cancer risk and screening mammography. *Nursing Inquiry*, 10, 245–256.
- Waitzkin, H. (1989). A critical theory of medical discourse: Ideology, social control, and the processing of social context in medical encounters. *Journal of Health and Social Behavior*, 30, 220–239.
- Wilkinson, R.G. (1999). Income inequality, social cohesion, and health: Clarifying the theory—A reply to Muntaner and Lynch. *International Journal of Health Services*, 29, 525–543.
- Williams, S.J. (1999). Is anybody there? Critical realism, chronic illness and the disability debate. *Sociology of Health and Illness*, 21, 797–819.
- Williams, S.J. (2003). Beyond meaning, discourse and the empirical world: Critical realist reflections on health. *Social Theory and Health*, 1(1), 42–71.
- Yabroff, K.R., & Gordis, L. (2003). Does stage at diagnosis influence the observed relationship between socioeconomic status and breast cancer incidence, case-fatality, and mortality? *Social Science and Medicine*, 57, 2265–2279.