# Cancer as Perceived by a Middle-Aged Jewish Urban Population in Israel

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reast cancer, colorectal cancer, and melanoma comprised 35% of all cancers diagnosed in Israel in 2005 (Central Bureau of Statistics, 2007). The five-year survival from was 78% for melonoma, 71% for breast cancer among Jewish women, and 45%–50% for colon cancer (Barchana, 2000). An increase in survival, particularly for breast cancer, has been observed in recent decades (Barchana).

Early-detection tests for breast, colorectal, and skin cancer are available for Israelis aged 50 years and older as part of the National Healthcare Services. However, despite guidelines for early detection, only 68% of women aged 50–74 years reported having a mammogram during the previous two years and only 53% of women ever had a cervical Pap smear test (Israel Center for Disease Control, 2006). Even less people have had colonoscopies and fecal occult blood tests (Shvartzman, Rivkind, Neville, Friger, & Sperber, 2000), and less than 10% of people aged 50 years and older have undergone colon cancer early detection tests (State Comptroller and Ombudsman, 2003).

Deciding to perform early detection tests for cancer is a complex process and many factors affect it, including organizational, social, and individual. A vast amount of literature exists on the attitudes and beliefs people have regarding cancer and early detection, and some attitudes depend on culture (Pasick & Burke, 2007; Russell, Perkins, Zollinger, & Champion, 2006).

*Learning hierarchies* suggest that knowledge changes affect attitudes that, in turn, affect behavior (K-A-B). Other possibilities have been suggested with different hierarchies. *Dissonance attribution* is when behavior change affects attitude change, which in turn will change knowledge (B-A-K); people will seek knowledge that will support their new behavior. *Low-involvement hierarchy* is when knowledge change affects behavior, which in turn affects attitudes (K-B-A) (Chaffe & Roser, 1986; Finnegan & Viswanatha, 2002). **Purpose/Objectives:** To identify beliefs and attitudes of a Jewish urban population in Israel regarding cancer, in the context of the present medical knowledge among lay populations.

**Research Approach:** Qualitative analysis of focus groups.

#### Setting: Israel.

**Participants:** Men and women aged 50 years and older from the larger Tel-Aviv (Israel) metropolitan area.

**Methodologic Approach:** Nine focus group discussions were conducted including 41 men and 41 women. A structured discussion guide was developed to ensure that the groups were facilitated consistently. The discussions were transcribed verbatim.

**Findings:** Medical knowledge expressed in the focus groups was high. Cancer was regarded as many distinct diseases, each one with different chances of early detection and cure. Breast cancer and skin cancer were regarded as diseases from which the chances of recovery were high, compared to colon cancer, which was regarded as fatal. Both traditional fatalistic beliefs and views regarding cancer as a chronic disease were expressed. Genetics was expressed as having a fatalistic role and as prompting early detection. Participants expressed great fear of cancer, particularly fear of treatments and death.

**Conclusions:** The process of incorporating knowledge and experience into the present belief system of this Jewish, urban, middle-aged population has not eliminated barriers to early detection.

**Interpretation:** The notion of cancer as a chronic disease should be promoted. Interventions aimed at forming more positive attitudes toward colon cancer are needed to increase adherence to screening recommendations. Healthcare providers and the media should try to decrease fear of cancer treatments in general.

The traditional Israeli press, such as newspapers and magazines, including online versions, disseminated a large amount of information about cancer in the past few years (Koten, Haim, Lev, & Weilmann, 2004; Yarchi, 2004; Weimann & Lev, 2006). Information may change the levels of knowledge that lay populations have regarding

#### **Quick Facts: Israel**

**Geography and economy:** Israel is a democratic pluralistic country on the east coast of the Mediterranean Sea; it is slightly smaller than New Jersey. As of the end of 2007, the total population in Israel was 7.2 million people, of them 5.8 million are Jewish and 1.45 million are Arabs, mostly Moslem. In 2005, GDP per capita based on purchasing power parities was \$26,500. The general Jewish population has an affluent western lifestyle. About 18% of the Jewish population has less than 10 years of schooling and about 44% have more than 13 years of schooling. Most of the population (90%) lives in the metropolitan centers and cities.

**Health care:** In 1995, a National Health Insurance Law was enacted that provides universal health care services to all Israeli citizens. Early detection tests for breast, colon, and skin cancers are provided as part of these services. Life expectancy is 78.5 among men and 82.5 among women.

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cancer and change or serve as a tool to support attitudes and behaviors. Knowledge about cancer also may change through personal experience (Curbow et al., 2004). Jones, Denham, and Springston (2006) found that middle-aged women were influenced more by mass media information regarding breast cancer screening and younger women were influenced more by interpersonal communication. The study was based on data gathered from college (n = 126) and middle-aged (n = 158) women. Mass media and interpersonal communication influencing screening behaviors of each age group were investigated, drawing on agenda-setting theory and the two-steps flow of information theory.

Fear and fatalism have been identified to be barriers that impede early detection and care in certain populations (Agurto, Bishop, Sanchez, Betancourt, & Robles, 2004; Coronado, Thompson, Koepsell, Schwartz, & McLerran, 2004; Greiner, Born, Nollen, & Ahluwalia, 2005; Lee, 2000; Remennick, 2003; Shankar, Selvin, & Alberg, 2002; Wolff et al., 2003). Fear, the inevitability of death, pessimism, and predetermination have been suggested to be the antecedents of cancer fatalism and were identified as a major belief regarding cancer (Borrayo, 2007; Powe & Finnie, 2003). Cancer fatalism is the belief that death is inevitable when cancer is present and that cancer cannot be prevented (Powe & Finnie, 2003). Cancer fatalism does not appear to be an all-or-none phenomenon but a continuum in which those with high-intensity levels of fatalism may be less willing to adopt preventive behaviors (Gorin, 2005; Kwok & Sullivan, 2006; Liang et al., 2007; Mayo, Ureda, & Parker, 2001; Powe, 1995, 2002). Two patterns of attitudes regarding fatalism were present among Jewish Israeli women with breast cancer: a science-oriented and active attitude and a fatalistic and

passive attitude (Baider & Sarell, 1983). The attitudes and beliefs of most of the population in Israel today are not clear when so much information is available through a diverse range of mass media and personal experiences with cancer. The hypothesis that attitudes and beliefs affect adoption of preventive health and early detection behaviors increases the need to understand the issues in the context of the medical knowledge currently available to the general population. Therefore, the objective of the current study was to identify beliefs and attitudes of a Jewish urban population regarding breast, colon, and skin cancer in the context of the present cancer medical knowledge that exists among lay populations.

## **Methods**

#### **Study Design**

The qualitative data for the current study were gathered using the focus group method. Three professionals with a background in group moderation served as facilitators in nine focus groups during a period of one month in 2007. Both authors served as observers. The focus groups lasted an average of 90 minutes and 9–10 people attended each one. Sessions were audiotaped and written notes were taken. The audiotapes were transcribed verbatim.

#### Sample

A professional organization that recruits focus groups for various purposes organized the recruitment of participants aged 50 years or older. The participants were all Jewish Hebrew speakers from the larger Tel-Aviv metropolis area and had a diverse range of education and income, from attaining graduate studies to not finishing high school. The average age of women was 56 and men 58. Three of the groups included only women, three only men, and three were mixed. The separate groups were formed to enable each gender to express itself with no gender barriers. Eighty-two participants attended the focus groups, 41 men and 41 women. After six focus groups, saturation was attained in categories and themes that emerged. One more focus group for each gender and a mixed group were added to strengthen the results; therefore, the study had nine focus groups.

The participants were not told that the subject of the focus groups was cancer and they were all Hebrew newspaper readers. Hebrew newspaper readers represent about 70% of the Jewish population in Israel (Target Group Index, 2005). None of the participants was from periphery towns was aor non-Hebrew speaker, such as Arabs or immigrants from the former Soviet Union; this was intentional because the authors were interested in people who received information from Hebrew newspapers.

#### Focus Group Discussion Guide and Procedure

A discussion guide was developed during meetings between the research team and facilitators to ensure that the groups were facilitated consistently. The guide was pilot-tested during the first and second focus groups. The issues raised in the discussion were based on a research question regarding attitudes people have toward cancer and early detection for the three cancers of interest: breast, colon and skin. The topics for discussion included feelings toward cancer, early detection and prevention, and sources of information. After the first two groups, probes were added asking about the specific three cancers of interest because they did not come up independently in the focus groups.

The facilitator started by asking the participants what disease worried them the most and then moved on to ask what their associations with the term *cancer* were and their feelings toward the term and why. Topics about death from cancer or worry about threatened femininity or masculinity were raised. Dialog between the participants started and the facilitator intervened infrequently in the discussion to bring up topics, such as early detection tests and risk factors; genetics for breast, colon, and skin cancer; and reasons they thought people decide to have screening tests. Toward the end, the participants were asked to express their opinions on available information sources about cancer.

#### **Data Analysis**

Data were analyzed qualitatively according to the guidelines of Unrau and Coleman (1997) (i.e., dividing the text into meaning units, identifying categories in the text, and explaining and interpreting of the data). The research team (the authors and one research assistant) read the transcripts and each team member coded and organized the data to identify key categories. The lists of categories were compared; inconsistencies found were resolved by revisiting and reviewing the data and reaching an agreement through discussion. The researchers then went back and read all the transcripts and identified themes apparent in the focus groups (Morse, 2008). The same process was used for attaining a unified list of themes.

## Results

Five major categories were identified in the analysis. The categories primarily corresponded with the focus groups discussion guide. Seven themes were identified and are listed in Table 1 as they appeared in the categories. For example, knowledge was a theme within the categories relating to risk factors and primary prevention of cancer, early detection tests, and sources of information.

#### Knowledge

Generally, high levels of knowledge about the various types of cancer, cancer treatment, and early detection were provided by participants in every focus group. For example, all focus groups participants could cite the names of early detection tests and knew the ages and frequency recommended for each test, such as mammography, colonoscopy, and skin examination. Participants also were aware of the treatments; many of the focus groups described the treatment for colon cancer as "colostomy surgery" or "having a colostomy bag attached to the intestine" as part of colon cancer treatment.

Knowledge about risk factors, family history, and genetics was reported by participants in all focus groups. In many cases, the knowledge was presented as the background for the attitudes and beliefs expressed.

#### Fear

The participants expressed deep emotions and concerns regarding cancer. The main feeling that emerged was fear, specifically fear of suffering. Other emotions were expressed, such as anxiety, helplessness and a feeling of loss of control, sorrow, grief, and fear of the unknown. The expression of fear was the most frequently expressed feeling and was repeated by all participants. Fear was expressed as different things by different people. The most expected type of fear by the research team was fear of death or the end of life, but it was not the most frequently cited fear in the discussions. Fear of suffering was the most frequently cited fear.

Suffering could come from the actual pain the disease caused.

It is better to die than to live and suffer.

I don't know if it is fear of death or the suffering.

The illness is usually associated with a lot of suffering and a lot of torture.

Death is the easiest thing, it is the simplest thing, what comes before death is frightening.

The participants appeared to have knowledge about cancer and experience with cancer treatments through friends and family and frequently were worried about the suffering inflicted by the cancer treatments.

The fear is not of the cancer but of the procedures that are associated with it.

Extending life entails too much suffering.

Let's say this, today I do not fear cancer, I fear, not out of fear, but out of knowing what waits during treatments.

The participants compared their feelings of being told that they have cancer to being told they have heart disease. All agreed that both were scary, but the suffering associated with a diagnosis of cancer was feared most

#### Table 1. Distribution of Identified Themes in the Focus Groups Within the Different Categories

	Category				
Theme	Attitudes and Feelings	Cancer Risk Factors	Primary Prevention	Early Detection Tests	Sources of Information
Knowledge	-	1	$\checkmark$	1	1
Fear	$\checkmark$	-	-	1	-
Attitudes toward the effectiveness of early detection tests	$\checkmark$	_	-	1	_
Cancer fatalism and cancer as a chronic disease	$\checkmark$	-	-	-	-
Lifestyle and behaviors as causes of cancer	-	✓	1	1	-
Genetics as a cause of cancer	$\checkmark$	1	-	_	-
Cancer as many diseases	✓	1	$\checkmark$	1	_

because of the suffering waiting ahead during treatment. In a diagnosis of heart disease, the treatments were not perceived as causing "suffering." The fear of suffering during cancer treatment affected participants' willingness to fight the disease and in some cases participants were willing to shorten their lives so as not to suffer while receiving the treatments. In addition, they perceived the treatments just as an extension of life and not a cure.

It depends who wants to go through all the torture for six more months or a year (of life), or he gives up. I would give up all this mess.

Another cause of fear was that the cancer can always return unexpectedly; this was a major cause for worry.

The fear is that you have no insurance that there will be no cancer in a few years, the cancer may come back, this is the point in my opinion that the person has to live with—that it may come back.

A few participants also mentioned fear of early detection tests in addition to the cancer itself. They feared the invasive tests and the chances of detecting disease.

#### Attitudes Toward the Effectiveness of Early Detection Tests

A very strong belief in the success of early detection of cancer was expressed by many of the participants.

I have a friend that her mother is living already 25 years with [breast] cancer; it was detected early and it all depends on that.

When it doesn't have a cure it is scary but if you are at the beginning it can still be cured, and it also depends on what type.

I believe that cancer like any disease can be treated, the problem of detection is the important problem.

You see, for every cancer the chances of cure depend on how early it was detected, that means if you go and have checkups your chances of being cured go up a lot compared to someone that becomes an ostrich and puts his head in the sand.

Very infrequently respondents expressed nonbelief in the early detection tests. A participant said, "Early detection does not save . . . every detection leads to death."

# Cancer Fatalism and Cancer as a Chronic Disease

Two types of fatalistic views can be identified. The first is the fatalistic view about the chances of recovery from the disease (survivorship), and the second was the fatalistic views of cancer prevention.

**Fatalistic beliefs in survivorship:** The first type of fatalistic view had two opposing opinions. Some people expressed fatalistic views about cancer as a death warrant. Even with all the treatments, in the end the cancer takes over and the patient will die, even if detected early and treated, in the end the disease is fatal. A participant said, "Death is nearly sure except for unique cases."

Other participants expressed opinions that cancer is not a fatal disease but could be regarded as a chronic disease and treatments were available, particularly if breast cancer and melanoma were detected early.

I say that cancer today is a chronic disease; many die, there are cancers where that's it . . . but there are a lot of cancers where it turns into a chronic disease.

I remember that in the 50's cancer was a terrible word and there was nothing to be done, but this

generation thinks it can be postponed and there are treatments so it is not so bad.

It is not fatal, there are breast cancers that are very violent but not all.

Really not, really not, people don't die of breast cancer today.

In all groups, a debate started spontaneously between participants with opposing opinions, those with more positive perceptions of cancer as a chronic disease and those holding more fatalistic opinions. Conversations such as these took place between participants in different focus groups.

I had a friend that died from breast cancer six years later.

Not true, if they detect these cancers early and get them out when they are very small and have not spread, then they can't metastasize, Golda Meir is a proof of that.

Breast cancer is terminal.

I don't think so, it seems to me the cancer that you can most live with.

Not true.

But there is a lot of success today for these things, its not like that, there are many women that had a mastectomy or something 10 years ago and have forgotten.

**Fatalistic beliefs about prevention:** The second type of fatalistic view was toward cancer prevention in which people believe that it is not possible to prevent cancer. A participant said, "No, no, I do not do those things . . . I am a fatalist, whatever comes, comes."

Fatalistic beliefs about cancer prevention were less frequently mentioned compared to nonfatalistic views. Nonfatalistic beliefs about cancer were based on the idea that adoption of a healthy lifestyle will prevent cancer. Generally, opinions within the focus groups were diverse and both sides of the continuum of fatalistic views were expressed.

#### Lifestyle and Behaviors as Causes of Cancer

The participants mentioned lifestyle, stress, and environment as causes of cancer and that having a healthier lifestyle may reduce chances of cancer.

I am saying that for prevention you need to eat well and should walk a lot.

However, some participants were ambivalent about the effectiveness of lifestyle changes.

I had a friend, she eat only healthy things, she eat vegetables all the time and drank a lot of water but poor thing she died at 44. In many cases, lifestyle was mentioned as part of the discussion about fatalism. Lifestyle was a way of providing participants with control over their life and supporting nonfatalistic beliefs.

#### Genetics as a Cause of Cancer

Genetics was mentioned as a cause of cancer in addition to lifestyle.

Genetics has the most power.

That's true but . . . I believe mainly that its genetics for all diseases not only cancer.

The expressed knowledge about the genetics of cancer seemed to support two types of attitudes. Family history (genetics) added to a fatalistic point of view as genes cannot be changed and nothing can be done to prevent the risk of cancer. The point of view was expressed infrequently. A particpant said, "It's genetic, there is nothing you can do about it."

Conversely, knowledge about family history served as a motive to participate in early detection and preventive behaviors. A participant said, "Also I do these tests (colonoscopy) because they found in my family some of these (cancers), it is hereditary."

#### **Cancer as Many Diseases**

Participants did not regard cancer as one disease but mentioned repeatedly that it depended on the type of cancer. This point was made in the focus group discussions for each category discussed. A participant said, "The term cancer includes many diseases."

Generally, breast cancer and melanoma were viewed as treatable and as chronic diseases, whereas colon cancer was regarded by most participants as fatal with no chances of recovery (see Table 2). Very harsh words were used to describe participants' feelings toward colon cancer, whereas much milder words were used for skin and breast cancers. Colon cancer was regarded as a fatal type of cancer and even though the participants were aware of the early detection tests, they did not mention them as lifesavers. Participants did not mention colon cancer as a cancer that if detected early can be cured or at least extend life as they did for breast and skin cancer.

Regarding colon cancer, participants said the following.

Very low chances of survival.

What comes to your mind about colon cancer? Excruciating death, it goes to all the body, that's just where it starts, there is no solution, the chances for a solution are grim.

Colon cancer is fatal.

I also think that there is no (cure), its not that many others do (have cures) but colon cancer does not have a cure.

# Table 2. Attitudes Toward Cancers Identifiedin the Focus Groups

Type of Cancer	Attitudes
Breast	Early detection effective Treatable, chronic disease
Colon	Early detection not so effective, fatal
Skin	Early detection effective Treatable, chronic disease

# Discussion

The focus group method used in the current study is a powerful method that provides insight into the beliefs and attitudes of people, without suggesting to them the issues being studied, as is inevitable in quantitative methods. Much research has been performed using focus groups to study people's attitudes and beliefs about cancer (Greiner et al., 2005; Lee, 2000; Liang, Yuan, Mandelblatt, & Pasick, 2004; Shankar et al., 2002; Vanslyke et al., 2008).

In this study, the participants expressed knowledge about medical issues related to cancer, which may be based on personal experience and information they were exposed to in the mass media. In other focus group studies, lack of knowledge about the different cancers was reported in populations such as African American, Caucasian, South Korean, or Latinas American (Beeker, Kraft, Southwell, & Jorgensen, 2000; Greiner et al., 2005; Lee, 2000). However, knowledge of medical issues does not ensure high rates of compliance with early detection recommendations because it does not ensure behavior change (although it may be an important prerequisite) (Valente, Paredes, & Poppe, 1998; Chaffe & Roser, 1986). Knowledge may form attitudes that in turn affect behaviors (learning hierarchies, K-A-B). Attitudes also may affect knowledge acquisition (dissonance attribution) (Chaffe & Roser). High levels of medical knowledge do not seem to alleviate all barriers to early detection (behavior) or alleviate fear of cancer. More knowledge may just change the barriers that are prevalent in the community. One example is fear of cancer treatment. Fear may inhibit people from getting tests. The more traditional fear expressed in the study was fear of death associated with cancer (Greiner et al.). The development of the newer type of fear of treatments and the degree of its intensity may be because of personal experiences of participants with friends and family or just having general knowledge of the treatments for cancer from the mass media. Perhaps participants' knowledge helped transfer the fear to the treatments because of the suffering known to be caused by treatments.

Generally, participants believed early detection tests are very effective in saving lives. Therefore, belief in the effectiveness of the early detection tests in this population will not be a barrier for complying with recommended early detection tests. This is true primarily for breast and skin cancer and not for colon cancer. The belief in effectiveness of the tests may have developed in accordance with the information people have and with positive experiences.

Another barrier to early detection observed in the study was the fatalistic beliefs in survivorship and prevention. In most of the literature the beliefs are regarded as cultural (Russell et al., 2006) and mainly studied in minority populations (Guidry, Matthews-Juarez, & Copeland, 2003; Ishida, Toomata-Mayer, & Braginsky, 2001; Luquis & Cruz, 2006; Powe, Hamilton, & Brooks, 2006). The population in the current study was an affluent population living in a large metropolitan area in Israel. Even so, the participants mentioned fatalistic views regarding cancer, particularly colon cancer. Fatalism is not regarded as a cultural belief within the Jewish Israeli population, whereas it is regarded as a basic cultural belief in the Arab community in Israel. Perhaps fatalism is stronger and more prevalent in minorities and lower socioeconomic groups (Russell et al., 2006); however, it is also prevalent in more affluent populations such as the majority Jewish population in Israel.

Freeman (1989) introduced a poverty-cancer spiral, where fatalism was viewed as a significant barrier to cancer care and suggested that poverty has a direct and indirect influence on fatalism. Based on the study, fatalism appears to be an all-around belief, found to varying degrees in the general population. Fatalistic beliefs may be viewed as being along a continuum, from full fatalistic beliefs to the opposing perception that cancer was a chronic disease that could be treated. The belief that cancer is a chronic disease seems to be based on experiences of the focus group participants with people they personally know being diagnosed and living with cancer as well as information they have acquired from the mass media about new drugs, new treatments, new early detection tests, and personal stories about people who were cured. Participants' beliefs may be in transition from the more traditional fatalistic view to the belief that cancer is a chronic disease, and the transition could be based on medical knowledge people have acquired and continue to acquire. The change may correspond with the theoretical framework in which knowledge affects attitudes and attitudes affect behaviors (learning hierarchies).

In addition, a more modern fatalistic view based on knowledge expressed by the participants regarding genetics as a cause for cancer was identified. The finding may be viewed as an external force in control of life, replacing external forces such as God or fate. For some participants, the knowledge that genes or family history are something people cannot control and determine the chances of having cancer supports fatalistic views. Conversely, some participants told family history stories but did not view them in a fatalistic manner, seeing early detection as a means to fight genetics; knowledge about genetics actually increased willingness to undergo early detection tests. The more new medical information people are exposed to about cancer may lead to fatalistic and nonfatalistic views; therefore, healthcare providers should not assume that new medical information will support certain attitudes. People gave greater value to genetics as a cause of cancer than the evidence shows; this is in accordance with the underlining of the topic in the press (Henderson & Kitzinger, 1999) in accordance with the finding that middleaged women relied on mass media medical information (Jones et al., 2006).

Most other similar studies focused on one type of cancer, such as colorectal (Beeker et al., 2000; Greiner et al., 2005; Tessaro, Mangone, Parkar, & Pawar, 2006), cervical (Agurto et al., 2004; Coronado et al., 2004; Lee, 2000) or breast cancer (Ishida et al., 2001; Luquis & Cruz, 2006). Only a few studies looked at cancer in general (Kwok & Sullivan, 2006; Shankar et al., 2002) or discussed a few types of cancer concurrently, enabling comparisons of attitudes toward the different types of cancer. The current study focused on three types of cancer, enabling comparisons. Overwhelmingly, participants did not view cancer as one disease but as many diseases characterized by anatomical site. The differentiation between types of cancer indicated that the population has a large body of knowledge to base their perceptions because they differentiate between cancers by types of early detection and treatment and chances of survival. Breast cancer was regarded as the most treatable cancer. Many of the participants knew women with breast cancer who were still alive, which may have had an effect on their perception of breast cancer. Skin cancer, particularly melanoma, also was mentioned as a cancer that can be cured and depends heavily on early detection.

However, different attitudes were expressed about colon cancer. The participants regarded colon cancer as a terminal rather than chronic disease. The early detection tests available were not cited as having high success rates in providing more chances for cure and the disease itself was considered fatal. The beliefs are in accordance with the actual survival data presented previously. The participants described the colostomy surgery and having a colostomy bag attached to the intestine as part of the treatment, which was thought of as a very demeaning and debilitating medical procedure. Mastectomy was mentioned but not with such negative connotations as the colostomy, which was surprising because mastectomy is identified as a drastic blow to femininity (Langellier & Sullivan, 1998). The femininity issue surprisingly was not mentioned if the facilitator did not specifically ask about it and even then it was not a major issue in any of the discussions. The fear of the outcome of colon cancer treatment in addition to the notion that colon cancer is fatal may deter people from having a colonoscopy. Compliance with early detection of colon cancer is low compared to mammography in Israel. The trend may in part be because of the negative beliefs toward colon cancer as opposed to the more positive beliefs toward breast cancer based on medical knowledge and experience.

The findings suggest that in the middle-aged urban Jewish population, health is a major concern and a lot of information and knowledge about diseases such as cancer is acquired. Health is regarded as of major importance in Jewish Israeli society (Shuval & Anison, 2000) and people are very aware of tests, treatments, and lifestyle behaviors that affect health; because the sample was not representative of all Israeli society, this may not be true for younger people or other population groups. However, the participants are from the majority group of Israel.

The attitudes identified in the study may be based on new information and knowledge regarding medical issues about early detection tests and success of cancer treatments. The knowledge has been incorporated into the current beliefs and attitudes about cancer. However, whether current knowledge changed attitudes or the information was acquired because of attitudes and behaviors is unknown (Chaffe & Roser, 1986). The information people attain from the media or from other sources may change attitudes and therefore increase or decrease their compliance with early detection tests or their behaviors may have an influence on the knowledge they attain and recollect to eliminate the dissonance between behaviors and attitudes and provide a basis for the new attitudes that will support the behaviors.

### Conclusions

Cancer is not regarded as one disease among the study population. Participants in the focus groups comparatively have positive attitudes regarding breast and skin cancer but negative attitudes for colon cancer. Moreover, fatalistic attitudes may exist on a continuum from strong fatalistic views to views that perceive cancer as a chronic disease. Fear of cancer exists; however, it is geared not only toward death but more toward suffering from treatments. These attitudes seem to be based on knowledge regarding cancer and experiences the participants had with the various cancers.

## **Recommendations for Nursing**

Healthcare providers and media messages should focus on cancer as a chronic disease because the effort may increase the willingness to adopt early detection behaviors. Specific attention should be given to colon cancer; people need to know that early detection of colon cancer will increase life expectancy and survival. Counseling interventions and media campaigns should try to increase positive knowledge about colon cancer and build positive attitudes toward early detection tests and treatments of the disease. A need to increase positive perceptions of cancer treatments in general to alleviate the fear associated with cancer treatments also exists. In addition, awareness of personal family history of cancer can support adherence to early detection tests and prevention if people adopt the chronic disease attitude. The study should be expanded to a quantitative study in a representative population to evaluate the extent and the difference among those holding different beliefs in subpopulations. Orna Baron-Epel, PhD, MPH, is a senior lecturer in the School of Public Health and Anat Klin, PhD, MSc, is a lecturer of mass communication in the Western Galilee Academic College and in the School of Public Health, both at Haifa University in Israel. This study was funded by the Israel National Institute for Health Policy and Health Service Research. Baron-Epel can be reached at ornaepel@research.haifa.ac.il, with copy to editor at ONFEditor@ons.org. (Submitted June 2008. Accepted for publication December 9, 2008.)

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