Use of Health-Related and Cancer-Specific Support Groups Among Adult Cancer Survivors

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BACKGROUND. Data from the National Health Interview Survey suggest that the utilization of mental health services among cancer survivors is low and unmet needs are high for some. However, to the authors' knowledge little is known regarding the prevalence and predictors of participation in health-related support groups.

METHODS. A total of 9187 participants in the California Health Interview Survey Complementary and Alternative Medicine (CHIS-CAM) study completed a telephone interview in 2003 (1844 participants with cancer and 4951 participants with other chronic health problems). Participants were asked to describe previous/current support group use, benefits of support group use, and physician involvement in decisions regarding support groups. Weighted logistic regression analyses were conducted using SUDAAN software to examine patterns of support group use.

RESULTS. The prevalence of support group use was found to be higher among cancer survivors (23.7%) than those with another chronic health condition (14.5%). Predictors of support group use were found to be similar across groups and included female gender, greater education, use of complementary and alternative medicine (CAM), depression, and anxiety. Age, health insurance, and presence of depression predicted support group use differently for cancer survivors and those with other conditions. The percentages of those perceiving support groups to be beneficial varied from 35.1% for those with skin cancer to 96% for those with cervical cancer. The percentage of participants reporting that their physician recommended a support group was low (10.2%).

CONCLUSIONS. Health-related support groups are used by nearly 1 in 4 cancer survivors, but levels of utilization differ across subgroups. An understanding of how cancer survivors use support groups highlights shortcomings in psychosocial care and suggests that additional efforts to overcome barriers to care are needed. *Cancer* 2007;109:2580–9. *Published 2007 by the American Cancer Society.**

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Support groups for those diagnosed with cancer are widely disseminated, and sometimes represent the only type of psychosocial care in many cancer treatment facilities and community advocacy organizations.[1] However, to our knowledge, little is known regarding how cancer survivors utilize health-related support groups.

Estimates of support group utilization in cancer survivors vary. Ganz et al.[2] reported that <6% of women with early-stage breast cancer were actively involved in support groups, whereas 30% reported that they had used a support group at some point since their diagnosis. Among women with early-stage breast cancer, the use of support services (defined more broadly than just the use of

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support groups) appears to be higher in the year after treatment, with 18.1% utilizing some form of psychologic or support group services.[3] To our knowledge, little is known regarding the use of supportive services by those with other cancer types. In what to our knowledge is one of the few studies examining across cancer types, Hewitt et al.[4] found that 14.2% of cancer survivors had participated in some form of counseling or support group after their diagnosis.

Even less is known regarding individual differences in support group utilization among cancer survivors. Small studies have bolstered anecdotal reports that women are more likely than men to attend cancer support group meetings,[5,6] whereas others have suggested that participation is associated with younger age, more education, greater encouragement from medical staff, and the use of complementary and alternative medicine (CAM).[6,7] A serious limitation of these studies is small sample size. In addition, extant studies generally describe findings within a single setting or disease site, thereby limiting our ability to generalize across survivors.

Cancer survivors may also differ from those without cancer in their use of health-related support groups. Support groups are commonly available for other chronic conditions (eg, diabetes, stroke, and cardiac care) and for a variety of other health-related issues (eg, alcohol/substance abuse or managing weight). It is not known whether cancer survivors use health-related support groups differently from those with other chronic conditions, or whether factors associated with support group use differ across disease conditions. Studies in noncancer populations suggest that patterns of support group participation may be lower than those observed in cancer populations.[8,9]

The California Health Interview Survey Complementary and Alternative Medicine (CHIS-CAM) study provides a unique opportunity to assess the population-level use of health-related support groups among cancer survivors and to compare survivors with those with and without other chronic conditions. Because CHIS-CAM was a population-based study, the results overcome many limitations of the existing literature by providing a large sample size across multiple cancer types, making it possible to compare cancer survivors with other groups, and offering measures of both general health-related and cancer-specific support group utilization. The current study has 3 objectives: 1) to describe the prevalence and correlates of health-related support group use among Californians, 2) to evaluate differences in support group use between cancer survivors and those with other chronic conditions, and 3) to characterize cancer survivors' use and perceptions of cancer-specific support groups.

MATERIALS AND METHODS
Participants
CHIS-CAM participants were drawn from participants who completed the 2001 California Health Interview Survey (CHIS 2001) and expressed interest in completing future studies (approximately 80%). Briefly, CHIS 2001 employed a random digit dial survey to sample 55,428 California adults. Additional description of CHIS-2001 has been previously published.[10] The CHIS-CAM sampling frame included CHIS 2001 respondents who reported a history of cancer (excluding nonmelanoma skin cancers) and a sample, stratified by race and ethnicity, of the remaining respondents. The final sample included 9187 participants (1844 cancer survivors, 4951 participants with a noncancerous chronic condition, and 2392 participants with no chronic condition). The unadjusted response rate was higher than for CHIS-2001 at 56% (ranging from 49.3% for Latinos to 65.9% for whites). The response rate was higher for cancer survivors (68.9%) than for those without cancer (53.1%). After excluding those participants who were never reached by telephone, the overall adjusted response rate was 77.3%.

Procedure
An information letter was mailed to all identified sample members, and computer-assisted telephone interviews (CATI) were conducted between January and April 2003 in English, Spanish, Korean, Cantonese, and Mandarin. On average, interviews took 14.1 minutes to complete.

Measures
Demographic characteristics were available from CHIS 2001. CHIS-CAM participants were prompted to self-report any previous diagnosis of cancer, their age at diagnosis, cancer type, and each of 11 other chronic disease conditions (ie, asthma, lung or breathing problems, heart conditions or cardiovascular disease, chronic obstructive pulmonary disease, arthritis or rheumatism, back or neck problems, stroke, diabetes, hypertension, depression or anxiety disorders, or any other conditions). Respondents who had been diagnosed solely with nonmelanoma skin cancer were not included in the cancer group.

CHIS-CAM asked respondents whether they had ever gone "to a group meeting where people with similar health problems got together to support and help each other." Those who reported attending at

least 1 meeting were asked to report the frequency of attendance in the past year and the degree to which the group was helpful to them. Respondents were also asked whether they had communicated their participation in a support group to their physician and whether their physician approved of their participation. Cancer survivors who reported using a support group for health were asked whether the support group was used specifically for cancer or for some other reason. Use and correlates of other CAM use or practices within this sample are reported elsewhere.[11]

Statistical Analysis

The analysis strategy employed in this study was developed to 1) identify factors associated with support group use in the population, 2) distinguish differences in support group use between those with and those without a chronic health condition and between those with cancer and those with a noncancerous chronic condition, and 3) characterize the use of cancer-specific support groups among cancer survivors. Logistic regression analyses were used to model the effects of demographic and medical characteristics on the presence or absence of support group utilization. Interaction terms were created to evaluate between-group differences (ie, no chronic condition vs any chronic condition and cancer vs a noncancerous chronic condition) in the associations between predictor variables and support group utilization. All analyses were conducted using SUDAAN software, adjusting for between-group demographic differences in age, gender, and ethnicity. In addition, a weighting procedure was used to adjust for differential response rates within the sampling frame, reduce the variance of statistical estimates; and provide unbiased, representative estimates of population parameters. Initial weights were assigned using final weights from CHIS-2001 and included adjustments for nonresponse to the screening and extended interviews. CHIS-CAM weights were further adjusted for language eligibility, willingness to participate in a follow-up study, and CHIS-CAM subsampling and unit nonresponse by raking. Raking dimensions included age, gender, cancer status, race/ethnicity, and rural versus urban residence, and this procedure produced a variance stratum variable that could be used to compute variance estimates using the Taylor Series Method.

RESULTS
Characteristics of Participants

Although the majority of participants were white (55.5%), the sample included large numbers of Latinos (23.8%), Asian Americans (11.4%), and African Americans (5.8%). The mean age of the participants was 45.6 years, and 51.5% of the participants were female. Cancer diagnoses among the 1844 survivors included breast cancer (19.7%); prostate, testicular, or male reproductive cancers (14.9%); cervical, uterine, or female reproductive cancers (17%); melanoma (12.2%); colon or rectal cancer (6.0%); lung cancer (2.4%); leukemia or Hodgkin disease (2.0%); other cancers (21%); or multiple cancers (4.6%). Demographic characteristics are presented separately for cancer survivors and those with other chronic health conditions in Table 1. Cancer survivors differed from those with other chronic conditions with regard to many of the key sociodemographic variables, including ethnicity (χ^2 (4) = 93.7; $P < .0001$), gender (χ^2 (1) = 6.6; $P = .013$), and age (t (6793) = 15.9; $P < .0001$). Among cancer survivors, there were significantly more women (59.7% vs 46.7%), more whites (78.1% vs 59.8%), and fewer Asian Americans (4.7% vs 10.8%). Cancer survivors were significantly older ($\bar{x} = 61.8$ years) than those with other conditions ($\bar{x} = 48.8$ years). Among all participants, 14.1% reported ever having used a support group (5.7% of healthy participants, 23.7% of cancer survivors, and 14.5% of those with a noncancerous chronic condition) (Fig. 1). Support group use in the past year was reported by 7.5% of all participants (3.5% of healthy participants, 10.8% of cancer survivors, and 8.1% of those with another chronic condition).

Participants who used a support group for health in the past year were asked to describe the groups they attended. Verbatim responses were recorded and qualitatively coded to characterize the types of support used. Approximately 40.8% of the participants attended a support group for a specific physical condition; 13.5% attended for assistance with addiction to alcohol, drugs, or gambling; and 12.7% attended groups for assistance with improving health behaviors such as physical activity or dietary changes. Participants also reported attending support groups related to specific psychiatric disorders (eg, depression, panic attacks, eating disorders [9.0%]); church or spirituality-based groups (8.4%); groups for caregivers or those grieving the loss of a loved one (2.6%); support groups for the elderly (1.9%); attending groups as a companion of someone else (1.5%); informal groups comprised primarily of friends (0.8%); and groups for managing the consequences of abuse, violence, and anger (0.6%). Approximately 8.3% of the described support groups were for nonspecific support.

TABLE 1
Demographic Differences Between Cancer Survivors and Those Reporting Other Chronic Health Conditions

	Sample size	Cancer survivors % of total (95% CI)	Those reporting nonmalignant chronic health conditions % of total (95% CI)
Total			
Age at interview, y			
18–24	321	1.75 (0.23–3.28)*	5.98 (4.17–7.79)
25–44	3007	13.93 (11.42–16.44)*	36.69 (34.22–39.16)
45–64	3642	34.63 (31.00–38.27)	28.39 (36.11–40.66)
65–69	592	14.12 (10.29–17.95)*	5.36 (4.47–6.24)
70–74	596	12.23 (9.71–14.76)*	5.66 (4.64–6.67)
≥75	1028	23.33 (20.04–26.62)*	7.93 (6.80–9.06)
Age at diagnosis, y			
<35	372	19.23 (16.30–22.17)	24.37 (4.16–44.59)
35–64	1219	52.13 (48.00–56.27)	60.63 (42.99–78.27)
≥65	519	28.63 (24.38–32.88)†	15.00 (7.72–22.27)
Years since diagnosis			
<5	551	37.52 (33.08–41.96)	43.75 (26.66–60.85)
5–10	621	27.97 (24.69–31.24)‡	16.29 (7.61–24.96)
11–15	322	12.75 (10.56–14.95)	17.53 (7.58–27.47)
16–20	208	7.86 (5.96–9.76)	5.60 (1.62–9.58)
21–25	135	4.96 (3.74–6.18)	10.01 (2.30–17.71)
26–30	88	2.78 (1.91–3.65)	2.76 (0.56–4.97)
≥31	182	6.16 (4.76–7.56)	4.06 (0.98–7.15)
Sex			
Male	3668	40.34 (36.17–44.50)‡	46.59 (44.10–49.08)
Female	5519	59.66 (55.50–63.83)‡	53.41 (50.92–55.90)
Race/ethnicity			
White, non-Hispanic	3660	78.13 (75.13–81.13)*	59.77 (57.59–61.95)
Latino	2267	9.10 (6.95–11.24)	19.66 (18.08–21.24)
Asian/Pacific Islander	1336	4.66 (3.16–6.15)*	10.84 (9.78–11.89)
African American	961	4.76 (3.35–6.18)	6.27 (5.59–6.95)
Other	963	3.35 (2.27–4.43)	3.46 (2.94–3.98)
Self-reported health status			
Excellent	1364	10.53 (7.88–13.18)	13.62 (11.74–15.49)
Very good	2776	25.21 (22.11–28.30)*	32.23 (29.85–34.60)
Good	2939	34.96 (31.06–38.85)	31.50 (29.22–33.78)
Fair	1630	21.75 (17.96–25.53)	18.89 (17.17–20.62)
Poor	466	7.56 (5.75–9.38)*	3.76 (3.10–4.42)

95% CI indicates 95% confidence interval.
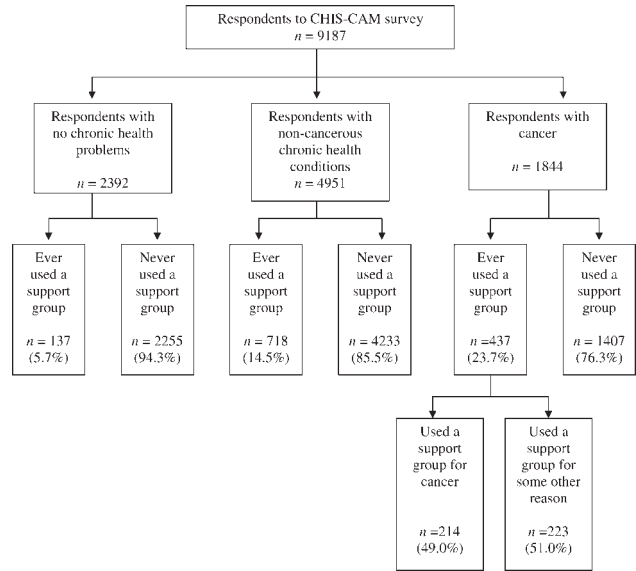* P <.001
† P <.01.
‡ P <.05.

FIGURE 1. Health characteristics and support group use among California Health Interview Survey Complementary and Alternative Medicine (CHIS-CAM) participants.

$P < .0001$), the presence of 1 or more chronic health conditions (OR of 1.98; $P < .0001$), and lower self-reported health ($P < .0001$). Compared with those reporting excellent health, those with good or very good health (OR of 2.01) and those with fair or poor health (OR of 3.02) were significantly more likely to have used a support group. Ethnicity was also associated with the likelihood of participation in a support group ($P < .0001$); Latino (OR of 0.39) and Asian American (OR of 0.33) participants were less likely to be involved in a support group than were non-Hispanic whites. No differences between non-Hispanic whites and African American participants were observed. Support group use was not found to be significantly associated with age, income, urban versus rural residence, or having employer-sponsored health insurance.

Support Group Utilization in Healthy Participants and Those With a Chronic Condition

With few exceptions, the correlations between support group utilization and the demographic/psychosocial characteristics described above did not differ significantly between healthy participants and those with a chronic health condition. However, significant interaction effects were observed for several key predictors. Although visits to a specialist for emotional/mental problems within the past 12 months was associated with a higher likelihood of support group utilization in both groups, the OR was substantially higher for healthy participants (OR of 12.94; 95% confidence

General Predictors of Community Support Group Utilization

Among all participants (regardless of health status), a greater likelihood of participation in a support group was associated with female gender (odds ratio [OR] of 1.65; $P = .0001$), greater educational attainment (OR for some college of 1.87, OR for college graduates of 1.71; $P < .0001$), the use of other CAM providers (OR of 1.90; $P < .0001$), depression (OR of 3.11;

TABLE 2
Sociodemographic Predictors of Support Group Utilization Among Cancer Survivors and Those Reporting Other Chronic Health Conditions

	Cancer			Other chronic conditions		
	OR	95% CI	P	OR	95% CI	P
Age at interview, y			.06			.18
18–44	1.00	Reference		1.00	Reference	
45–64	1.62	0.91–2.90		0.90	0.63–1.28	
≥65	1.05	0.56–1.96		0.68	0.45–1.04	
Age at diagnosis			.02			.02
18–44	1.00	Reference		1.00	Reference	
45–64	1.67	1.09–2.54		0.12	0.03–0.57	
≥65	0.87	0.47–1.59		0.19	0.03–1.14	
Sex			.007			.03
Male	1.00	Reference		1.00	Reference	
Female	1.81	1.18–2.79		1.44	1.04–1.98	
Race/ethnicity			.001			.0001
White, non-Hispanic	1.00	Reference		1.00	Reference	
Latino	0.21	0.09–0.46		0.49	0.33–0.73	
Asian/Pacific Islander	0.33	0.12–0.91		0.41	0.27–0.62	
African American	0.97	0.47–1.99		0.84	0.60–1.19	
Other	0.74	0.37–1.50		0.54	0.35–0.85	
Education			.01			.09
<High school	1.00	Reference		1.00	Reference	
Grade 12 or high school diploma	1.06	0.45–2.48		1.60	0.95–2.68	
Some college	2.32	0.98–5.57		1.94	1.16–3.22	
≥College degree	1.90	0.83–4.35		1.64	0.98–2.75	
Household income, % of Federal Poverty Level			.07			.69
0–99	1.00	Reference		1.00	Reference	
100–199	1.41	0.65–3.05		1.27	0.73–2.22	
200–299	0.62	0.28–1.37		1.44	0.80–2.62	
≥300	1.24	0.64–2.42		1.26	0.73–2.18	
Residence			.32			.26
Exurban/rural area	1.00	Reference		1.00	Reference	
Urban/suburban area	1.28	0.79–2.09		1.26	0.84–1.90	
Currently have health insurance			.03			.61
Yes	1.00	Reference		1.00	Reference	
No	0.38	0.16–0.89		1.12	0.73–1.72	

OR indicates odds ratio; 95% CI, 95% confidence interval.
Results are adjusted for age, gender, and ethnicity.

interval [95% CI], 5.86–28.56) than for those with a chronic condition (OR of 3.59; 95% CI, 2.45–5.25). Among healthy participants who reported fair or poor health, the likelihood of support group participation was significantly lower than for those reporting excellent health (OR of 0.11). However, for those participants with a chronic health condition, fair or poor self-reported health was associated with a greater likelihood of support group participation compared with those reporting excellent health (OR of 2.49).

Support Group Utilization in Cancer Survivors and Those with Another Chronic Condition
Differences and similarities in support group use among those with cancer and other chronic health conditions are presented in Tables 2 and 3. Age at diagnosis, access to health insurance, and self-reported depression or anxiety predicted support group utilization differently for those with cancer and those with other chronic conditions. Among cancer survivors, being diagnosed between the ages of 45 and 64 years was found to be associated with a higher likelihood of support group utilization (OR of 1.67; 95% CI, 1.09–2.54) compared with those diagnosed at younger or older ages (Table 2). Among those with other chronic conditions, being diagnosed between ages 45 and 64 years was associated with a lower likelihood of support group utilization (OR of 0.12; 95% CI, 0.03–0.57). With regard to health insurance, those with other chronic conditions were not found

TABLE 3
Mental Health, Physical Health, and Use of Medical and Complementary and Alternative Services as Predictors of Support Group Utilization Among Cancer Survivors and Those Reporting Other Chronic Health Conditions

	Cancer			Other chronic conditions		
	OR	95% CI	P	OR	95% CI	P
Use of other CAM providers			.006			.01
≥1 providers	1.85	1.19–2.85		1.48	1.09–2.01	
0 providers	1.00	Reference		1.00	Reference	
Use of other CAM techniques			<.0001			<.0001
None	1.00	Reference		1.00	Reference	
≥1	3.95	2.57–6.06		2.10	1.51–2.91	
Diagnosed by a physician as having depression or anxiety			.37			<.0001
Yes	1.22	0.79–1.8		2.59	1.81–3.71	
No	1.00	Reference		1.00	Reference	
Self-reported health			.73			.002
Excellent	1.00	Reference		1.00	Reference	
Very good or good	1.20	0.64–2.27		1.97	1.17–3.30	
Fair or poor	1.02	0.50–2.08		2.83	1.60–5.03	
Time since cancer diagnosis, y			.06			NA
0–2	1.34	0.70–2.55		–	–	
3–9	1.58	1.09–2.29		–	–	
≥10	1.00	Reference		–	–	
Cancer interfered with work or doing things			.40			NA
Not at all	1.00	Reference		–	–	
A little or somewhat or a great deal	1.38	0.72–2.67		–	–	
Cancer-related pain or discomfort in past month			.15			NA
Not at all	1.00	Reference		–	–	
A little	1.48	0.62–3.56		–	–	
Somewhat	1.26	0.57–2.77		–	–	
A great deal	0.32	0.11–0.97		–	–	

OR indicates odds ratio; 95% CI, 95% confidence interval, CAM, complementary and alternative medicine, NA, not applicable.
Results are adjusted for age, gender, and ethnicity.

to be any more or less likely to have used support groups if they did not have access to health insurance, whereas cancer survivors were significantly less likely to use support groups if they did not have health insurance (OR of 0.38; 95% CI, 0.16–0.89). Cancer survivors reporting physician–diagnosed depression or anxiety were no more likely than those reporting no depression/anxiety diagnosis to have used a support group. However, those participants with other chronic health conditions who reported depression or anxiety were significantly more likely to have used a support group (OR of 2.59; 95% CI, 1.81–3.71) compared with those reporting no depression/anxiety (Table 3). Support group use among cancer survivors was not found to be associated with time since diagnosis, cancer interference, or cancer-related pain/discomfort (Table 3).

Use of Cancer-Specific Support Groups among Cancer Survivors

Although 23.7% of cancer survivors reported having used a support group for health, only 11.2% reported

having used a support group specifically for cancer (Table 4). Use of a cancer-specific support group varied across cancer types, with greater utilization reported among those participants with leukemia or Hodgkin disease (41.3%) or breast cancer (25.9%) compared with those with female reproductive cancers (3.0%) and lung cancer (0.03%). Similarly, among those participants who had attended a cancer support group, the frequency of attendance was found to vary by cancer type, with a relatively high attendance noted among those with leukemia or Hodgkin disease ($\bar{x}$ = 74.1 sessions). Among other cancer types, the average number of attended sessions ranged from a low of 2.5 for those with skin cancers to 12.0 for those with breast cancer. Among those participants who had used a cancer support group, the majority reported that the groups had been beneficial (78.4%) and had told their physician about their use of the support group (71.8%). Although only slightly more than half of prostate/male reproductive cancer survivors and 35% of those with skin cancer who had used a cancer support group described it as being beneficial,

TABLE 4
Perceived Benefit and Physician Recommendation/Approval Among Those California Cancer Survivors Reporting Use of a Cancer-related Support Group Within the Past 12 Months

Cancer site	Ever used support group for cancer		Used support group for cancer within past 12 months		Mean No. of times used	Perceived benefit		Told physician about support group Use		Recommended by physician		Physician approved of use	
	No.	% (95% CI)	No.	% (95% CI)	No.	No.	%	No.	%	No.	%	No.	%
All types	214	11.22 (8.78–13.66)	95	6.37 (4.15–8.59)	16.6	174	78.36 (66.42–90.30)	156	71.83 (59.69–83.97)	20	10.21 (5.24–15.18)	122	89.91 (81.94–97.89)
Cervix, uterus, other female genital organs	12	2.96 (0.44–5.47)	6	2.05 (0–4.43)	8.8	10	95.36 (86.72–100)	9	54.97 (9.36–100)	1	1.30 (0–4.08)	8	100 (100–100)
Breast	114	25.87 (19.02–32.72)	46	12.15 (6.15–18.14)	12	90	78.00 (66.37–89.63)	22	18.39 (9.84–26.93)	16	15.66 (7.13–24.20)	66	95.96 (90.22–100)
Prostate, testes, other male genital organs	27	11.00 (2.64–19.37)	15	8.22 (0–16.49)	5.9	20	51.48 (9.64–93.32)	19	46.85 (7.35–86.35)	2	8.57 (0–21.81)	13	79.46 (58.06–100)
Colorectal	12	7.58 (2.43–12.73)	5	4.16 (0.08–8.24)	4.2	9	91.13 (77.83–100)	8	62.79 (28.44–97.13)	3	29.28 (0–59.00)	5	100 (100–100)
Lung	5	0.03 (0–7.57)	1	5.82 (0–1.77)	12	4	92.17 (75.39–100)	2	27.27 (0–85.78)	0	–	2	100 (100–100)
Skin	11	8.73 (0–18.45)	9	8.12 (0–17.85)	2.5	9	35.11 (0–85.60)	5	30.41 (0–77.34)	0	–	3	38.91 (0–95.97)
Leukemia, Hodgkin disease	9	41.29 (14.06–68.52)	7	34.88 (7.37–62.39)	74.1	8	92.74 (77.89–100)	6	70.88 (35.32–100)	0	–	5	100 (100–100)
Other	28	11.73 (5.94–17.53)	14	6.21 (2.15–10.27)	10.8	26	95.48 (87.93–100)	22	76.96 (2.55–43.53)	2	7.84 (0–18.53)	19	98.43 (95.30–100)

95% CI indicates 95% confidence interval.

perceived benefits were quite high among those with a female reproductive cancer (95.4%), colorectal cancer (91.1%), lung cancer (92.2%), and leukemia or Hodgkin disease (92.7%). Although participants reported that their physicians approved of their use of a cancer support group (89.9%), few physicians had recommended participation in a group (10.2%). Physician recommendations for cancer support groups were most common among those participants with colorectal cancer (29.3%) and breast cancer (15.7%), and much less common among those with cervical or other female reproductive cancers (1.3%), lung cancer (0%), skin cancer (0%), or leukemia/ Hodgkin disease (0%).

DISCUSSION

Cancer survivorship is accompanied by an increased incidence of affective disorders,[12,13] a high prevalence of distress,[14] a higher need for emotional and social support,[15] and an increased desire to change health behaviors to minimize the risk of disease progression or recurrence.[16,17] Community support groups can serve as an important resource for meeting these needs. The results from the large CHIS-CAM dataset provide evidence that cancer survivors made greater use of community-based support groups and were more likely than either healthy participants or those with another chronic health condition to have used support groups in the past year.

Although rates of use differed across groups, specific characteristics associated with the use of health-related support groups were found to be similar for those with and those without cancer or other chronic conditions. Our large population-based sample largely confirmed findings from previous studies within cancer populations. A greater likelihood of support group participation was associated with female gender,[5,6] more educational attainment,[6,7,18] and the use of CAM.[7,19–20] In addition, higher support group use was associated with the presence of depression and poor physical health, and Asian American or Latino ethnicity was associated with less support group use. However, language barriers to accessing support services may play a role in the lower levels of utilization observed in these ethnic groups. Nonsignificant differences in support group utilization between non-Hispanic whites and African Americans also replicate previous findings.[21]

Although there is some overlap between factors associated with support group use and factors associated with the use of any type of CAM (ie, gender, ethnicity, and education[11]), several factors unexpectedly failed to predict the use of support groups,

including age, income, and urban residence. In previous studies, younger age has been linked with a greater likelihood of support group participation,[6,7] but this was not the case in the current study. We also anticipated that persons living in metropolitan areas would have greater access to health-related support groups, but this also did not prove to be the case. This finding may be attributable to the highly urbanized nature of California's population distribution. The 2000 U.S. Census showed 88.4% of the nearly 34 million people living in California resided in urban areas,[22] compared with 68.3% nationwide.

Key differences between those participants with and those without a chronic health condition and those with and without cancer were observed. That those without a chronic condition were less likely to use support groups when their health was described as fair or poor may suggest that the types of health-related support groups available to those without a chronic disease are more likely to reflect health promotion goals. Those with worse health may be less able (physically or emotionally) to participate in these groups. Conversely, for those living with a chronic condition, salient health-related support groups may serve a more restorative function and thereby be less attractive to those who perceive themselves to be in excellent or good health despite their chronic disease(s). In contrast to those without cancer, self-reported physical health was not found to be associated with the likelihood of support group participation among cancer survivors. This suggests that support groups have relevance to cancer survivors regardless of the extent to which their health is impacted by their cancer. Similarly, a diagnosis of depression or anxiety was associated with a greater likelihood of support group use for those with a chronic condition but not for those with cancer. This suggests that emotional distress is only 1 reason why cancer survivors use health-related support groups. Support groups for cancer survivors provide many distinct benefits, including finding a community of those who share the cancer experience,[23] obtaining information regarding cancer or its treatment,[24] learning how to cope with cancer sequelae,[18] discussing fears related to disease recurrence or death,[25] and providing support to others confronting similar issues.[26] Therefore, it may be advisable for physicians to promote involvement in support groups to their cancer patients, regardless of the presence of depression, anxiety, or overt distress. A large majority of cancer survivors who used support groups reported receiving clear positive benefits.

Zabora et al.[14] have shown that across cancer types, distress levels are highest among those with lung, brain, liver, and pancreatic cancers, yet individuals with lung cancer in the current study exhibited relatively low levels of support group utilization. The high disease burden and low survival rates associated with these cancers may present significant barriers to support group participation. In addition, support groups specific to these cancer types are much less commonly available than support groups for breast or prostate cancer. It is worth noting that despite representing only 19.7% of the sample of cancer survivors, breast cancer accounted for greater than half of those survivors who had used a cancer support group.

An unexpected finding in the current study was that although physician approval of support group use was nearly ubiquitous, only 10% of those who used a support group had received a recommendation from a physician to do so. These results are consistent with those reported elsewhere[27,28] and highlight a disconnect between provider recommendation and the use of supportive services by survivors. Despite having positive attitudes toward supportive services, physicians express concerns about the potential for exposure to medical misinformation or encouragement to utilize unconventional therapies.[27,28] Communication between healthcare staff and cancer survivors regarding psychosocial services could simultaneously address physicians' concerns and promote the use of support groups that have the potential to enhance patients' quality of life. Psychosocial oncology providers also have a role to play in educating healthcare staff about support group availability, the level of professional involvement in such groups, and empiric support for their use.

There are several noteworthy limitations to the current study. First, CHIS-CAM respondents were sampled from respondents to the CHIS-2001 survey. Because the overall response rate to CHIS-2001 was 37.7%, and 80% of these agreed to participate in future surveys, there are questions concerning the representativeness of the data. However, CHIS-2001 response rates were similar to other comprehensive random-digit dial surveys, including the California Behavioral Risk Factor Surveillance System,[29] and the sample appears to be unbiased with respect to demographic and health characteristics when compared with 2000 U.S. Census data.[30] In addition, the sample of cancer survivors was generally representative of the population of cancer survivors in California. However, the sample described in the current study may slightly underrepresent colorectal cancer (6.0% in this study vs 15.4% statewide) and overrepresent melanoma (12.2% in this study vs 4.2% state-

wide[31]). A second limitation is that the study relied on self-reported data to characterize both the use of health-related support groups and the presence of chronic conditions. It is possible that participant errors in characterizing disease status could lead to misleading results. Finally, our within-cancer survivor analyses of support group use for cancer are constrained by small sample sizes. Although we have reported cancer-specific support group use separately for various cancer types, estimates within cancer types are considered to be less reliable than the estimates provided for all cancer survivors.

Conclusions

Health-related support groups are widely available, and nearly 1 in 4 survivors use a support group at some point after their diagnosis. We believe the current study sheds light on which individuals with cancer use these services. Males, Latinos, and Asian Americans appear to be less likely than others to access support services. It appears unlikely that these subgroups have dramatically different experiences of cancer survivorship than others, yet they are less likely to seek the potential benefits of support groups. Efforts are needed to bridge existing gaps between psychosocial and nonpsychosocial care providers.[32] Assistance in identifying and accessing support groups should be a standard of care for all patients receiving curative, follow–up, or palliative care for cancer.

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