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Burden among partner caregivers of patients diagnosed with localized prostate cancer within 1 year after diagnosis: an economic perspective

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Abstract

Purpose—Informal care plays an important role in the overall care for people with cancer. This study estimates lost productivity and informal caregiving and associated costs among partner caregivers of localized prostate cancer patients within 1 year after diagnosis.

Methods—We applied data from the Family and Cancer Therapy Selection study, a three-wave self-administered survey among patients diagnosed with localized prostate cancer and their partner caregivers in multiple clinics in the USA. Time spent was measured by the sum of working hours lost, informal caregiving hours performed, and hours spent on household chores. The national median income for women 55 years or older was used to calculate costs associated with the time spent using the opportunity cost method. Descriptive and bivariate analyses were conducted.

Results—The average working hours decreased from 14.0 h/week (SD=17.6) to 10.9 h/week (SD=15.9), without a significant change in responsibility/intensity at work. The mean annual time spent on informal caregiving and household chores was 65.9 h/year (SD=172.4) and 76.2 h/year (SD=193.3), respectively. The mean annual economic burden among partner caregivers was US $6,063 (range US$571–US$47,105) in 2009 dollars accounted for by a mean of 276.2 h (range 26–2,146) in the study sample. The time spent on informal caregiving and household chores varied by patient and caregiver characteristics.

Conclusions—Pilot estimates on non-medical economic burden among partner caregivers (spouses) during the initial phase of the treatment provide important information for comprehensive estimation of disease burden and can be used in cost-effectiveness analyses of prostate cancer interventions.

Keywords

Informal caregiving; Prostate cancer; Local stage; Time cost; Household chores; Productivity

Introduction

Informal care plays an important role in the overall care for people with chronic and terminal diseases. It is increasingly being considered as a valuable substitute for formal care and presents large national economic value [1, 2]. The demand for informal care is expected to increase in the future due to the aging of the population and, therefore, becomes a growing public health issue.

Cancer caregiving is generally viewed as one of the most stress-inducing caregiving challenges faced by family members [3], which typically requires intensive involvement of family caregivers to help administer complex medical regimens (e.g., pain management) in addition to providing assistance with daily activities. Additionally, the demand for informal care varies greatly by patient stage at diagnosis and phase of treatment [2, 4]. Patients newly diagnosed or with recent cancer treatment were more likely to receive informal caregiving compared to those without cancer or recent cancer treatment [5, 6]. Most prior economic studies focused on treatment costs and productivity lost among patients [7–10]. For caregivers, more attention has been paid on the effect of caregivers' opportunity costs and quality of life [2, 11–14]. Economic burden among caregivers varied by patient's medical and caregiver's sociodemographic characteristics [2, 12]. Economic burden among caregivers of prostate cancer patients has been rarely studied, however.

Prostate cancer is the most commonly diagnosed cancer and the second leading cause of cancer-related deaths among men in the USA [15]. Prostate cancer primarily affects men 50 years of age and older and disproportionately affects men of African American descent [15]. There were approximately 2.3 million men with a history of prostate cancer in 2007, and 80% were diagnosed at localized stage [16, 17]. The number of men with prostate cancer is expected to increase in future years because of the higher incidence among the elderly, increasing life expectancy, and growth of the aging US population [18]. All treatment options for prostate cancer result in adverse effects (primarily urinary, bowel, and sexual), which may affect the daily activities and quality of life of both patients and caregivers [19–21]. Spouses of patients with prostate cancer play a major role in helping men manage the illness and need to be included in programs of care [21].

The purpose of this study is to estimate costs associated with lost productivity and informal caregiving among partner caregivers of localized prostate cancer patients within 1 year after diagnosis and to examine the variation in such burden by patient and partner caregiver's characteristics. To our knowledge, no studies have reported costs associated with informal caregiver time during the initial phase of treatment among prostate cancer patients diagnosed with localized disease. Such information is important to fully assess the disease burden and estimate the cost-effectiveness of prostate cancer control intervention and framing issues for interventions targeting family caregivers of localized prostate cancer patients.

Methods

Study design

We conducted a retrospective analysis using data from the Family and Cancer Therapy Selection study, a three-wave self-administered survey among patients newly diagnosed with localized prostate cancer and family caregivers in multiple clinics in the USA. Recruitment procedures and patient eligibility are described elsewhere [22]. Briefly, 423 newly diagnosed patients were approached in urology practice sites in California, South Carolina, and Texas. Eligible patients (n=240) included those diagnosed with incident localized prostate cancer, who had not initiated treatment other than hormone therapy at the time of approach. Interested patients signed consent forms and received a take-home survey to return by mail. Patients identified a family caregiver to participate in a separate baseline survey. Mailed follow-up surveys to patients and family caregivers were administered at 6 and 12 months; however, questions on employment status and time spent by caregivers were asked at 12-month follow-up only. Study materials were approved by the institutional review board at each accrual site and the coordinating center. Participants received US$25 for completing the baseline survey.

One hundred ninety-three family caregivers of the 240 eligible patients participated in the baseline survey, and 96 completed the 12-month survey. We restricted our analyzed sample to the 88 spouses/partners who completed the 12-month survey and lived in the same household with patients because annual household income was only collected among patients (Fig. 1).

Measures

Economic burden—At 12-month follow-up, the partner caregivers were asked about their change in employment status, change in working hours per week, and change in work responsibility/intensity due to prostate cancer care compared with their status 12 months ago. The partner caregivers were also asked about their time (hours per week) spent on informal caregiving (e.g., going to the doctor with the patient or helping with his health care) and time spent on household chores previously done by patients (e.g., mowing the lawn, cooking and cleaning, household repair, managing household finances, and other activities) in the past 4 weeks. The responses to each question about time were ordinal categorical groups (none or less than 1, 1–2, 3–5, 6–10, 11–19, and ≥20 h/week), and the midpoint of each group was used as the value of time spent by each respondent on that type of activity (household chores, informal caregiving, and working hours). The total annual time spent on working hours, informal caregiving hours, and household chore hours (i.e., work hours lost/week×36+informal caregiving hours/week×52+household chore hours/week×52) was calculated. The annual economic burden associated with the time spent was measured by multiplying the total annual time spent with the annual national median income for women 55 years or older using the opportunity cost method (i.e., the cost of an alternative that must be forgone in order to pursue a certain action). All costs were in 2009 dollars.

Patient characteristics—Patient sociodemographic characteristics included age (<65, 65+years), race/ethnicity (non-Hispanic white, non-Hispanic black/Hispanic/Asian), education (some college or less vs. college graduate or higher), employment status (yes/no), annual household income (<US$40,000, US$40,000–US$74,999, US$75,000+), and insurance status (Medicare, non-Medicare private insurance, military insurance, other/unknown), and whether “time away from work” was an important factor in the treatment choice (yes/no). Patient health status included disease classification (moderate/high-risk group vs. low-risk group) [23], self-reported health status (excellent, very good, good, fair, and poor), number of comorbidities (0, 1, 2+), the SF-12 Mental and Physical Component Summary Scale [24], and patient function after prostate cancer treatment measured by the Expanded Prostate Cancer Index Composite score [25] (a proxy for severity of side effects; urinary, bowel, and sexual scores ranged from 0–100, with 100 reflecting the best symptom status).

Caregiver characteristics—Caregiver sociodemographic characteristics included age, race/ethnicity, education, employment status, annual household income, and whether “time away from work” was an important factor in treatment choice (yes/no). Caregiver health status was assessed using self-reported health (excellent, very good, good, fair, and poor) and the SF-12 Mental and Physical Component Summary Scale.

Statistical analysis

Descriptive and bivariate analyses—We described the sample characteristics for patients and partner caregivers. We also compared the analyzed sample with the full study sample at baseline to examine potential selection bias. We assessed mean total hours spent on workplace hours, informal caregiving, and household chores for the analyzed sample, and examined whether time spent differed significantly by patient and caregiver's characteristics using *F*-statistics following a previous publication [2]. A significance level of 0.05 was used. Analyses were conducted using Stata 11.2 SE [26].

Sensitivity analysis—We reanalyzed the data using a time value that was the low and high end point of each time category. In addition, we calculated the time costs using median usual weekly earnings among women who usually worked 10–14 h/week from the Census data.

Results

The median age among the 88 partner caregivers included in the analysis was 61.5 years (range 34–80), with 21.6 % older than 67 years. The caregivers were predominantly non-Hispanic whites (78.4 %) with at least a college education (58.0 %). Most families (62.5 %) reported an annual household income of US$75,000 or more. Fifty-seven percent of the caregivers reported having excellent/very good health. Only 1.2 % of caregivers reported that “time away from work” was important in treatment choice compared with 9.4%of patients (Table 1). No significant differences in the characteristics of our sample as described in Table 1 (e.g., patient age, caregiver age, and household income) were found between the analyzed sample (*n*=88) and the original study sample (*n*=193) (data not shown).

At the start of the study, a little more than two-thirds of the caregivers (39 of 88) were engaged in full- or part-time employment (working hours/week>0) compared with 35 of 88 at 12-month follow-up (Fig. 2). Two of the 49 caregivers who did not work outside the home at baseline started working outside the home after the cancer diagnosis (age=63 and 64, respectively), while 6 out of the 39 caregivers who reported working outside the home at baseline dropped out of work (5 out of 6 were 62 years or younger). Among those who continued working, 82.4 % reported no change in “work responsibility/intensity”. However, mean working hours decreased from 14.0 h/week (SD=17.6) to 10.9 h/week (SD=15.9). The mean time spent on informal caregiving was 1.3 h/week (SD=3.3) and 1.5 h/week (SD=3.7) on household chores (previously done by patients) (Table 2). Assuming the estimates of time spent per week in the past 4 weeks before the 12-month survey was representative of the mean time spent across the 12 months following diagnosis, the mean total time spent was 276.2 h (range 26–2,146) per year, accounted for by 76.2 h of household chore time, 65.9 h of informal caregiving, and 134.1 h of lost work productivity in the study sample of partner caregivers. The mean total time spent among partner caregivers of localized prostate cancer patients translates into a mean annual economic burden of US$6,063 (range US$571–US$47,105) (2009 dollars) based on national median wage rate for full-time worker among women aged 55 years or older. The economic burden is US$2,530 (range US$242–US $19,691) based on national median wage rate among women who usually worked 10–14 h/week. The results from sensitivity analyses and the influence of assumptions about wage rates are presented in Table 3.

White caregivers reported to spend more time on informal care than non-white (black, Hispanic, or Asian) caregivers. Caregivers reported spending more time on informal care among patients with moderate- to high-risk prostate cancer and those who experienced moderate to severe side effects on sexual function compared with their counterparts. Caregivers with some college education or less reported spending more time on informal caregiving and household chores than those who had an education of college graduate or higher. Caregivers with annual household income less than US$40,000/year reported spending more time on household chores than those who had higher annual household income. Among those patients who were employed at the time of diagnosis and those who experienced moderate to severe sexual function decline, their caregivers spent more time doing household chores that used to be done by patients compared with caregivers of their counterparts (Table 4).

Discussion

This study retrospectively estimated economic burden among family caregivers (spouses/partners) of patients diagnosed with localized prostate cancer within 1 year after diagnosis. Notably, caregivers in our sample appeared to have given up approximately 134 annual hours of paid employment and experienced increases in the number of hours spent performing informal caregiving and household chores. The mean annual economic burden of these tradeoffs among the study sample of partner caregivers due to localized prostate cancer treatment translates to US$6,063 in 2009 dollars. If our sample was representative of the 1.8 million individuals with localized prostate cancer and their spouses/partners in the USA, this would translate into an annual cost to society of US$11.0 billion. Time spent on informal caregiving and household chores varied by patient and partner caregiver characteristics.

The time spent among caregivers estimated in this study was approximately 2.6 times (in magnitude) that of patient time associated with cancer care (such as time associated with travel to and from care, waiting for appointments, and receiving care) during the initial phase of treatment among patients diagnosed with prostate cancer [8]. However, it is not feasible to meaningfully compare the estimates of time spent and associated economic burden from this study with previous studies on caregiver burden for cancer patients due to the differences in study time frame, study sample recruitment strategy, and activities included in informal caregiving estimation [2, 5, 12].

Previous research has found that caring for a husband with an advanced illness presents challenges to a caregiver's work life including diminished productivity, decreased quality of work, and missed opportunities for promotion [27]. Most previous studies examined employment outcome among patients treated for prostate cancer with little attention paid to treatment impact on caregiver's employment status [28, 29]. This study identified some impact on partner employment; partners experienced both job seeking and early retirement. Previous studies found that the probability of dropping out of work increases with the caregiver's age and female gender, and significantly decreases with the caregiver's reported annual family income [30]. Furthermore, partner caregivers likely arrive at the decision to terminate employment or stop working outside the home jointly with the patient; therefore, patient's education level, employment status, and insurance coverage should be considered. We were not able to observe such a relationship in our study sample partially because of a small sample size (low frequency of observed change in employment status), and most of the caregivers were women older than 60 years with an annual household income of US $75,000 or more.

The time spent on informal caregiving and household chores varied significantly by caregivers' characteristics. Caregivers with lower SES (e.g., lower education or lower annual household income) reported spending more time on informal caregiving and household chores than their counterparts. On one hand, this may be due to lower opportunity costs for them to spend more time on informal caregiving and household chores, while people with higher annual household income may have more resources available to hire someone to help with their household chores. On the other hand, caregivers who have low income may experience more distress because they may have fewer resources to meet care demands. Caregivers also reported spending more time on informal care and household chores among patients who experienced moderate to severe side effects on sexual function, which suggested that prostate cancer treatment affected daily activities and quality of life among partner caregivers.

Some limitations are noteworthy in this study. First, the results estimated in this study may not be representative of those in the general population with localized prostate cancer because patients and partner caregivers were convenience samples recruited in three study clinics. As a result of small sample sizes, study estimates were unstable with large standard deviation. Second, we did not have a control group for employed caregivers, so changes in employment may not be directly attributable to cancer. In addition, we examined the employment outcome of caregivers at 12 month after diagnosis. The greatest reduction in patients' labor supply was observed 6 months following diagnosis [29]. Our figures may be an underestimate if the effect on caregiver employment follows a similar pattern as observed among patients. Similarly, we may underestimate the total annual time spent on informal caregiving and lost productivity using data from the past 4 weeks before the 12-month follow-up survey [31]. Third, our results of the impact of prostate cancer treatment on employment status among family caregivers may be overestimated at the national level because the mean age of the caregivers in the study sample was 60.4 years, while the national average age at retirement is 62 in the USA which is expected to increase to 67 years in 2012. Furthermore, the average age of retirement (stop working) varies by race, income bracket, place of residence, and occupation. Fourth, no information is available for other components of economic burden of caregivers such as out-of-pocket costs for transportation, nondurable supplies, nutritional supplements, and specialized home health equipment. In addition, “informal caregiver effect” and “family effect” have been studied for caregivers of patients with chronic conditions. In this study, we only estimated economic burden associated with time among caregivers but did not include a comprehensive measure of other caregiver burden such as psychological health which might be associated with medical care use. Thus, we cannot estimate the total economic burden for partner caregivers of localized prostate cancer patients.

Our study is unique in several ways. Our collection of economic burden data is novel and captures three important domains—employment, informal caregiving, and household chores—which were domains identified as important to patients and caregivers in our initial focus caregiver groups [22]. Although our sample is small, it reflects the experience of patients in three states from diverse clinical settings. Our patient/partner dyads were prospectively recruited together at the time of the patient's prostate cancer diagnosis, prior to treatment. This is important because we are able to examine differences in economic burden based on observed changes in patient's health over the first year of treatment. To the authors' best knowledge, this is the first study to examine economic burden of informal caregivers of patients diagnosed with localized prostate cancer at the initial phase of treatment (within 12 months after diagnosis). Such information is important for comprehensive estimation of disease burden and can potentially be used in cost-effectiveness analyses of prostate cancer (screening) and treatment interventions, as well as to inform interventions targeting family caregivers. Furthermore, this information can help guide patients and caregivers when considering treatment alternatives including active surveillance and watchful waiting [32].

Conclusion

Increasingly attention has been paid to productivity savings from prevention and control strategies [33]. Public health response has been intended to address known aspects of caregiver burden in other countries [34]. We hope that, given the suggestion of excess time borne by caregivers relative to patients, the results of our study will make researchers, clinicians, and policy makers more aware of the burden that cancer treatment places on patients' families and motivate them to consider additional support to those patients and caregivers in need in the USA. Future studies are needed to further examine family caregiver's economic burden associated with prostate cancer treatment in a larger sample including family members other than spouses/partners and to explore potential interventions to reduce such burden especially among those who are poor or underinsured.

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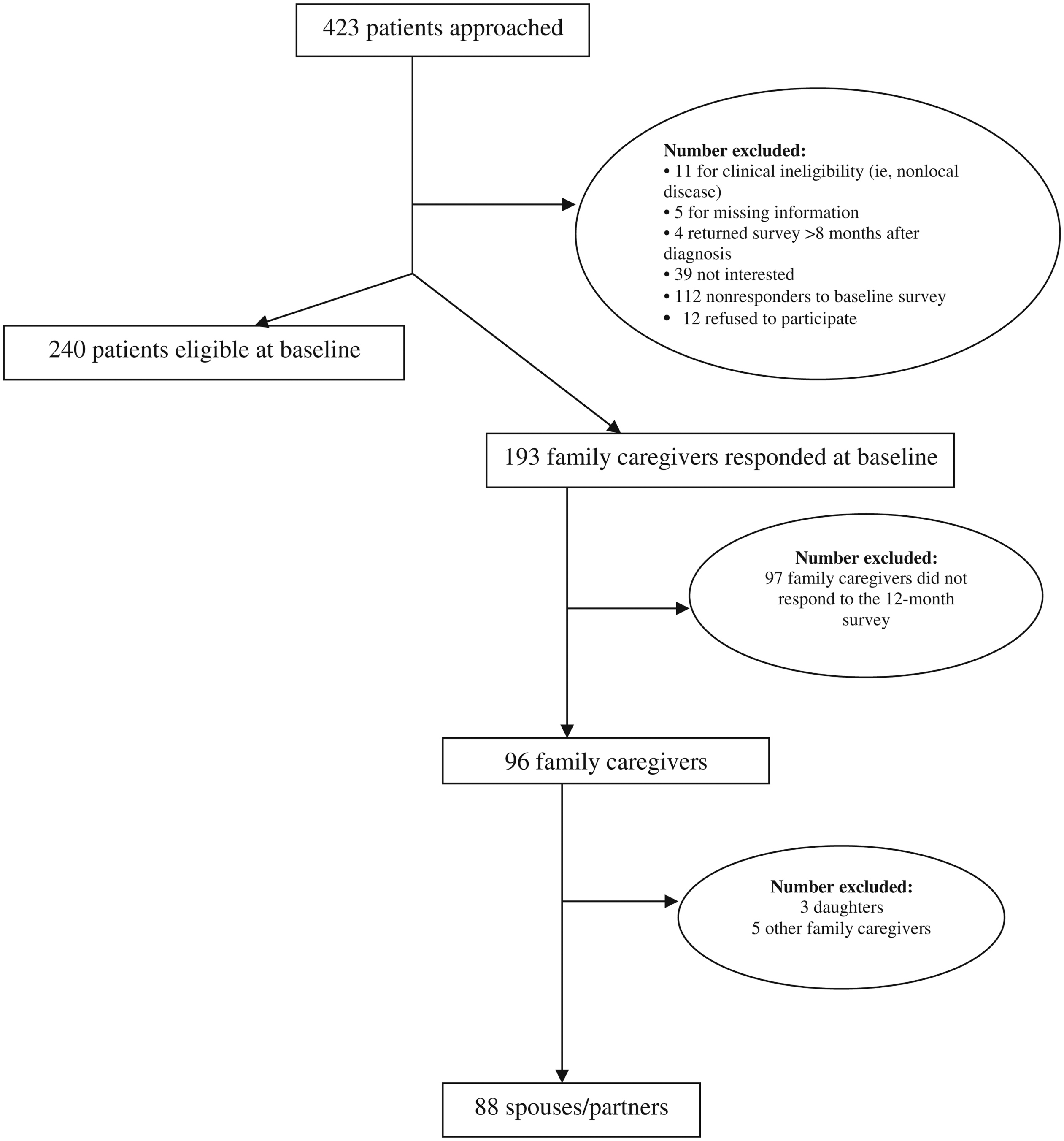

Fig. 1.

Consort flow diagram for analyzed sample from the Family and Cancer Therapy Selection study (*n*=88 partner caregivers)

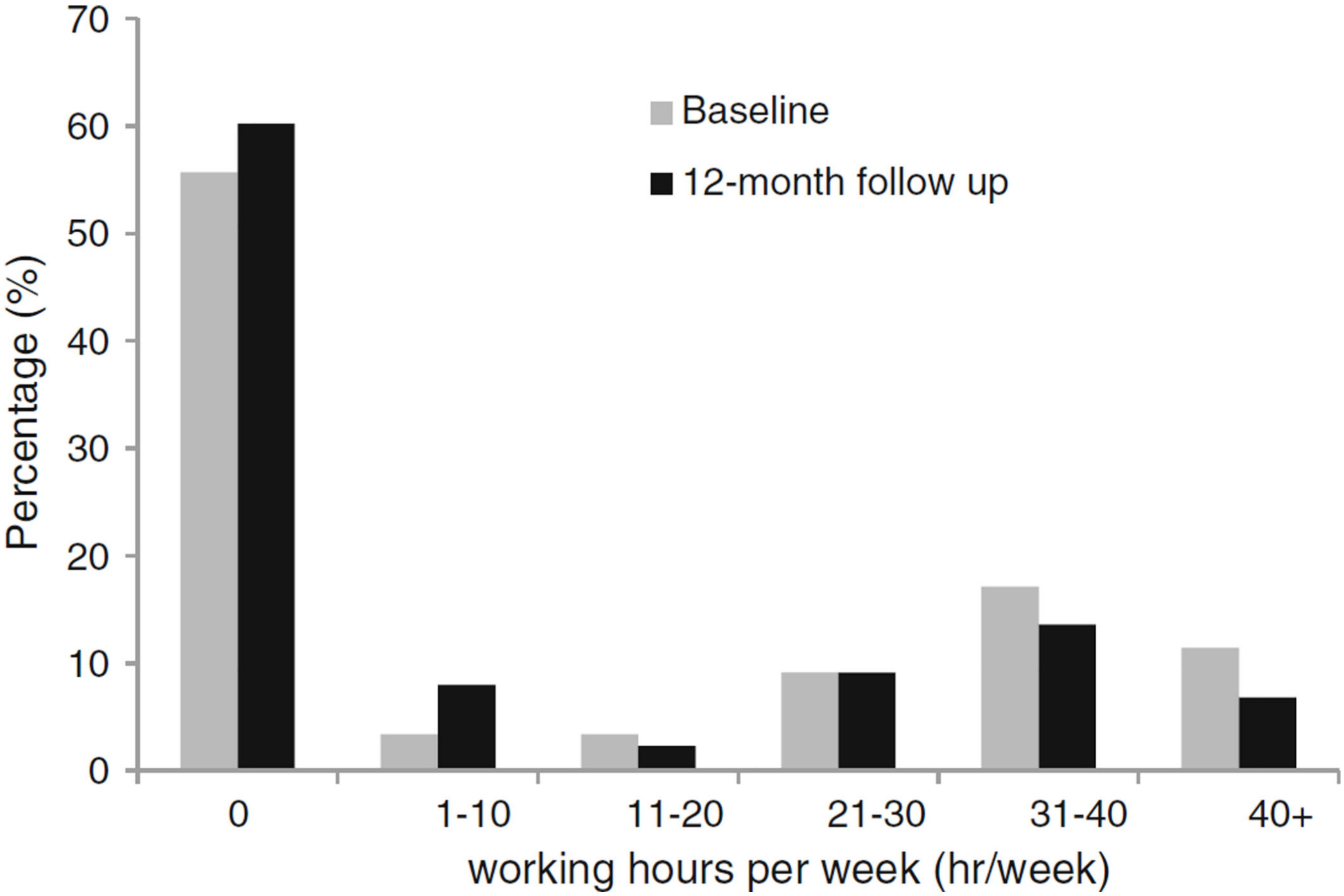

Fig. 2.
Distribution of partner's working hours per week at baseline and 12-month surveys

Table 1

Description of sample characteristics of prostate cancer patients and partner caregiver pairs at baseline

Characteristic	Patients		Partner caregiver	
Total	*n*=88	%	*n*=88	%
Age (years)				
<65	44	50	60	68.2
65+	44	50	28	31.8
Median (range)	65 (47–81)		61.5 (34–80)	
Race/ethnicity				
Non-Hispanic white	71	83.5	69	78.4
Non-Hispanic black/Hispanic/Asian	14	16.5	19	21.6
Insurance				
Medicare	31	36.5	n/a	n/a
Private (non-Medicare)	34	40	n/a	n/a
VA/military	16	18.8	n/a	n/a
Other/unknown	4	4.7	n/a	n/a
Employment				
Full time/part time/self-employed	60	68.2	39	44.3
Retired/unemployed/unknown	28	31.8	49	55.7
Education				
High school or less	7	8	10	11.4
Some college	19	21.6	27	30.7
College graduate	30	34.1	36	40.9
Graduate degree	29	33	15	17.1
Household income (US$/year)				
<40,000	13	14.8	13	14.8
40,000–74,999	16	18.2	16	18.2
75,000+	55	62.5	55	62.5
“Time away from work” was important in treatment choice				
Yes	8	9.4	1	1.2
No	77	90.6	86	98.8
Disease classification				
Low risk	45	51.1	n/a	n/a
Moderate/high risk	43	48.9	n/a	n/a
Number of comorbidities				
0	27	30.7	n/a	n/a
1	37	42.1	n/a	n/a
2+	24	27.2	n/a	n/a
Median (range)	1 (0–6)		n/a	n/a
Self-reported health at baseline				
Excellent/very good	57	66.3	50	56.8
Good/fair/poor	29	33.7	38	43.2

Characteristic	Patients		Partner caregiver	
Change in EPIC[a] domain summary scores (12-month vs. baseline)				
Urinary irritation function				
No change/increase/mild decrease	74	90.2	n/a	n/a
Moderate/severe decrease	8	9.8	n/a	n/a
Urinary incontinent function				
No change/increase/mild decrease	58	69.9	n/a	n/a
Moderate/severe decrease	25	30.1	n/a	n/a
Sexual				
No change/increase/mild decrease	52	61.9	n/a	n/a
Moderate/severe decrease	32	38.1	n/a	n/a
Survey site				
California	57	64.8	57	64.8
Texas	16	18.2	16	18.2
South Carolina	16	17.1	16	17.1
SF-12 component summary scales, mean (SD)				
Physical component summary	52.8	8.2	51	10.1
Mental component summary	50.5	10.3	48	10

n/a not applicable

[a] The Expanded Prostate Cancer Index Composite (EPIC) score (Wei et al. 2000)

Table 2

Occupational and economic impact of prostate cancer treatment on partner caregivers within 1 year after diagnosis

	Number	Percentage
Change in employment status (*n*=88)		
Remained unemployed/retired	47	53.4
Remained employed	33	37.5
Started working	2	2.3
Dropped out of work	6	6.9
Working hours/week at baseline (mean, SD)[a]	14	17.6
Working hours/week at 12-month survey (mean, SD)	10.9	15.9
Change in work responsibility/intensity (*n*=34)		
Less	3	8.8
The same	28	82.4
More	3	8.8
Not applicable		
Time on informal caregiving (h/week)		
<1	64	80
1–2	11	13.8
3–5	2	2.5
6–10	0	0
11–19	1	1.3
20+	2	2.5
Mean (SD)	1.3	3.3
Time on household chores (h/week)[b]		
<1	72	84.7
1–2	6	7.1
3–5	2	2.4
6–10	2	2.4
11–19	0	0
20+	3	3.5
Mean (SD)	1.5	3.7

[a] Working hours/week was significantly lower at 12-month survey compared with baseline, *p*=0.004

[b] Time on household chores was for activities used to be done by patients before prostate cancer diagnosis

Table 3

Results for sensitivity analyses

	Low bound	High bound	Middle point
Lost working hours/year	106.4	151.4	134.1
Household chore hours/year	53.9	102.1	76.2
Informal caregiving hours/year	44.0	135.6	65.9
Total hours/year	204.2	389.0	276.2
Value 1 (US$/year)[a]	4,483	8,539	6,063
value 2 (US$/year)[b]	1,871	3,563	2,530

[a] Value 1 was based on annual national median income for women 55 years or older

[b] Value 2 was based on median usual weekly earnings among women who usually worked 10–14 h/week

Table 4

Time spent on caregiving and household chores and lost work time among partner caregivers of prostate cancer patients by patient and caregiver characteristics over 1 year after diagnosis

	Mean lost workplace hours (SD)	*p* Value	Mean informal caregiving hours (SD)	*p* Value	Mean household chore hours (SD)	*p* Value
Overall	134.1 (366.3)		65.9 (172.4)		76.2 (193.3)	
Caregiver characteristics						
Age (years)		0.23		0.81		0.52
<65	147 (410.6)		72.4 (193.5)		95.6 (211.2)	
65+	45 (238.1)		62.8 (163.3)		67.2 (185.5)	
Race/ethnicity		0.89		0.03		0.83
Non-Hispanic white	117.4 (366.3)		143.7 (316.9)		84.8 (231.9)	
Non-Hispanic black/Hispanic/Asian	104.2 (376.2)		44.5 (96.4)		73.9 (183.2)	
Employment		<0.001		0.52		0.32
Full time/part time/self-employed	276.9 (500.4)		76.4 (203.6)		94.4 (214.5)	
Retired/unemployed/unknown	(14.7) (80.8)		52.7 (123.9)		53.3 (162.7)	
Education		0.87		0.04		0.02
Some college or less	107 (371.0)		111.0 (258.5)		132.1 (289.0)	
College graduate or higher	120 (366.5)		33.1 (31.7)		35.7 (29.9)	
Household income (US$/year)		0.77		0.41		0.02
<40,000	83.1 (485.3)		118 (278.3)		210 (374.4)	
40,000–74,999	67.5 (321.2)		81.3 (187.7)		32.5 (24.2)	
75,000+	134.2 (353.1)		50.2 (136.1)		58.6 (148.5)	
Self-reported health at baseline		0.66		0.69		0.06
Excellent/very good	94.7 (385.2)		57.5 (165.2)		120.4 (276.2)	
Good/fair/poor	129.6 (354.5)		72.3 (179.1)		42.6 (77.9)	
Patient characteristics						
Insurance		0.17		0.63		0.18
Medicare	203.2 (466.5)		74.6 (185.6)		53.7 (97.7)	
Private (non-Medicare)	31.8 (190.4)		48.9 (130.0)		29.8 (15.9)	
VA/military	101.3 (405)		35.8 (26.6)		102.4 (254.5)	
Employment		0.61		0.72		0.03

	Mean lost workplace hours (SD)	*p* Value	Mean informal caregiving hours (SD)	*p* Value	Mean household chore hours (SD)	*p* Value
Full time/part time/self-employed	97.2 (362.2)		71.8 (179.3)		36.4 (56.3)	
Retired/unemployed/unknown	137.4 (375.3)		58.2 (165.0)		128.6 (280.5)	
Disease classification		0.95		0.06		0.89
Low risk	112 (358.5)		31.8 (21.4)		73.2 (174.3)	
Moderate/high risk	117.2 (378.6)		101.6 (242.0)		79.2 (211.8)	
Number of comorbidities		0.58		0.41		0.12
0	66.7 (240.2)		99.2 (271.5)		139.6 (324.6)	
1	160.5 (399.8)		61.8 (129.8)		48.5 (90.1)	
2+	97.5 (431.1)		34.7 (19.8)		47.7 (52.4)	
Change in EPIC[a] domain summary scores (12-month vs. baseline)						
Urinary irritation function		0.82		0.92		0.88
No/mild decrease	126.5 (365.8)		56.2 (147.6)		55.9 (134.4)	
Moderate/severe decrease	157.5 (445.5)		61.75 (63.6)		48.8 (64.3)	
Urinary incontinent function		0.98		0.1		0.41
No/mild decrease	127.2 (356.8)		47.5 (134.0)		56.9 (143.4)	
Moderate/severe decrease	129.6 (404.2)		117.5 (247.1)		90.5 (215.3)	
Sexual		0.21		0.03		0.01
No/mild decrease	79.6 (321.6)		29 (17.6)		37.5 (37.9)	
Moderate/severe decrease	185.6 (444.4)		106.4 (249.6)		147.1 (307.0)	
Survey site		0.17		0.57		0.68
California	75.8 (298.4)		80.3 (211.6)		70.2 (193.9)	
Texas	101.3 (405)		39 (28.5)		113.8 (254.9)	
South Carolina	276 (517.5)		39.9 (49.0)		58.9 (100.4)	

SD standard deviation

[a] The Expanded Prostate Cancer Index Composite (EPIC) score (Wei et al. 2000)