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Estimating the Impact of Caregiving and Employment on Well-Being

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ABSTRACT
The aging demographic profile of the American population coupled with the increased burden of chronic disease is increasing the demand for care – both within the healthcare system and within the home. As a result of these trends, a large proportion of the population is facing the competing demands of working and caring for a loved one. In the study presented here, we investigated the impact of informal caregiving, employment, and the combination of these responsibilities on the overall well-being of 243,997 Americans surveyed using the Gallup-Healthways Well-Being Index™ (GHWBI). Results demonstrated that caregivers typically have lower levels of well-being compared with non-caregivers of the same employment status; however, employment is associated with greater well-being, even among caregivers. These findings were fairly consistent across all sub-domains of well-being, demonstrating that employment has a broad-based positive affect on the lives of workers, and that the beneficial impact of employment on well-being often supersedes any detrimental impact of caregiving. In conclusion, the higher well-being reported by employed caregivers compared with their non-employed counterparts suggests that there are benefits of employment, such as financial security and social support, that can ease the burden of the caregiving role.

INTRODUCTION

The aging of the baby boomer generation is rapidly changing the age profile of the United States. Between the years of 2000 and 2030, the number of Americans over 65 will more than double, increasing from 35.1 million in 2000 (12.4 percent of the population) to 71.5 million in 2030 (19.6 percent of the population).[1] Further, this group will be increasingly burdened by chronic disease that can be physically disabling.[2] Despite chronic disease trends, longevity continues to increase over time. Life expectancy data from the Centers from Disease Control shows progressive increases over only twenty years (1986, 74.7 yrs; 1996, 76.1 yrs; 2006, 77.7 yrs).[3] The interplay of these trends leads to the logical conclusion that there is a large and growing elderly population with demanding care needs that extend for many years.

Of the approximately 52 million Americans who act as a caregiver to an adult who is ill or disabled,[4] approximately 59% are employed.[5] Although more women than men still play this role (59% to 75%), there was a 50% increase in the number of male caregivers over the ten year period from 1984 to 1994.[6] That so many Americans must balance their responsibilities as an employee and as a caregiver with their day-to-day lives and other family responsibilities raises the question of how individuals are affected by these roles.

Previous research has demonstrated that work performance is diminished when an individual takes on the role of caregiver. A positive correlation exists between work productivity loss and caregiving-related strain, an effect heightened with intensity of caregiving and the medical care needs of the care-recipient. Caregiving has shown to reduce work productivity by 18.5%[7] and increase the likelihood of leaving the workforce.[8] Further, this responsibility takes a toll on a caregiver's life outside the workplace. Caregivers, regardless of employment status, report that productivity in activities of daily life is reduced by 27.2% as a result of caregiving responsibilities,[7] and that the effect on personal life is 3 or more times greater than the effect on employment.[9]

Prior research has shown that caregiving does not affect all caregivers equally since the demands of the role vary widely.[7] Caregiving is a career in which level-of-effort progresses with time. As shown in Figure 1, caregiving often begins before a family member even recognizes that they are providing support with minor activities, such as simply 'checking in' with a loved one. As the older person becomes frailer, the need for support grows. In many cases, declining health or a catastrophic event, such as a fall, increase care requirements to include around-the-clock help with daily activities and home medical care.[10]

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Logically, as the caregiving career progresses in this manner, the increased demands would magnify the overall impact that this role has on many different aspects of the caregiver's life.

Existing research on the effects of caregiving has focused on specific elements of the caregiver's life, or on relatively small groups of caregivers that have certain characteristics. Using the Well-Being Index as a tool, this study is the first to demonstrate the impact that caregiving and employment have on well-being on a national level. Further, through analysis of specific elements of well-being, we provide a clear picture of the magnitude of effect on the constructs that contribute to overall well-being.

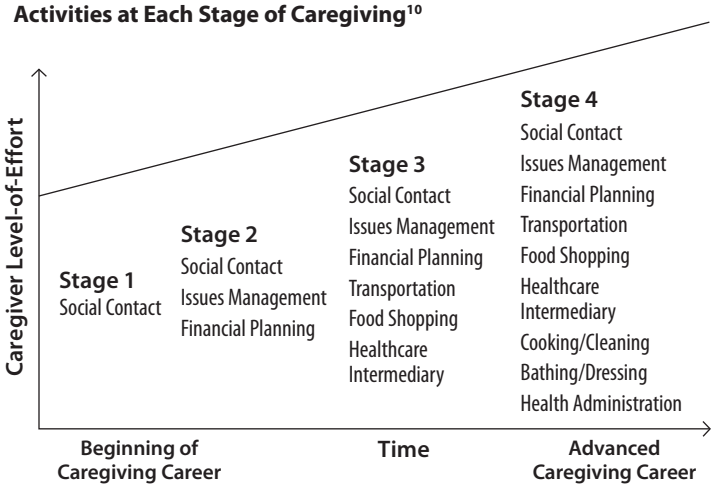
METHODS

Data Collection

Study data was collected between January 2 and December 31, 2008 using the Gallup-Healthways Well-Being Index (GHWBI) survey. The survey was administered telephonically by live interviewers employed by Gallup. Random digit dialing was used to reach individuals, via land lines or cell phones, throughout the United States. Only persons aged 18 years or more were eligible for the survey and the survey was administered in Spanish when necessary.

Interviewers completed approximately 1,000 surveys per day over the twelve month time period, working seven days a week from 4:00 PM to 9:00 PM, with the exception of holidays. A total of 355,334 surveys were completed. The interviewers completed each structured interview in 15 minutes, on average. Survey data was weighted by Gallup to match targets from the U.S. Census Bureau by age, region, gender, education, ethnicity, and race. The final weighted survey results used in this analysis are estimated to represent 98% of the full U.S. adult population with a margin of error of ± 0.2%.

FIGURE 1: The Caregiving Career: Activities at Each Stage of Caregiving[10]



Survey Tool

The GHWBI is a comprehensive assessment tool containing over 80 questions on evaluative and experienced measures of well-being, in alignment with previously published guidelines.[11, 12] The survey is scored as a whole (composite score) and for each survey domain in which questions are categorized. These domains, or sub-indexes, are as follows.

Sub-indexes:

Life Evaluation Index: This index combines the evaluation of one's present life situation with one's anticipated life situation in 5 years and is based on Cantril's Self-Anchored Striving Scale.[13]

Emotional Health Index: This index reflects the daily affective experiences of survey respondents. It also includes one item that probes for prior history of diagnosed depression.

Physical Health Index: This index measures both acute and chronic disease as well as physical limitations, obesity, and energy level.

Healthy Behavior Index: This index evaluates lifestyle habits that affect health including smoking, healthy diet, fruit and vegetable intake, and exercise.

Work Environment Index: This index measures workers' feelings and perceptions about their work environment. The items cover job satisfaction, the ability to use individual strengths at work, and aspects of supervision. This sub-index score is only calculated for the percentage of the population that is working.

Basic Access Index: This index measures access to basic needs including food, shelter, and healthcare, a safe and satisfying place to live, and perceptions of the community.

The composite score and sub-index scores were calculated using the methodology described in the GHWBI Methodology Report.[14] Briefly, all items were scored on a 0 to 100 scale such that a higher score was indicative of higher subjective well-being for each of the sub-indexes. At the individual level, composite scores were calculated as the un-weighted average of all sub-index scores.

Study Population

The eligible population for this study (n = 243,997) included survey respondents of working age, between 18 and 64 years, and excluded all individuals with incomplete data. The study population was categorized into four groups for analysis: (1) individuals who were both caregivers and employed (n = 33,481); (2) individuals who were caregivers and non-employed (n = 12,817); (3) individuals who were non-caregivers and employed (n = 150,570); and (4) individuals who were non-caregivers and non-employed (n = 47,129). All analyses were performed using SAS software (SAS Institute Inc., Cary, NC). Although all reported data are weighted, reported sample sizes are un-weighted unless otherwise specified.

Analysis

Differences between group means were statistically tested using one-way Analysis of Variance (ANOVA). Since, using GHWBI guidelines, the composite score was calculated as a population metric, individual level scores were not initially available to conduct between-group analysis. Thus, for the purpose of comparing scores between the four groups, we modified the score calculation in order to create individual level scores and perform the ANOVA testing.

When comparisons using ANOVA proved significant, this test was followed with Tukey's multiple comparison test to determine which of the groups were significantly different from one another. Analysis of the Work Environment Index, for which the comparison included only two groups, was performed using an independent sample t-test.

In addition to evaluations of composite and sub-index scores, the four groups were further compared on specific individual survey items including rates of diagnosed depression, evaluation of standard of living, and mood. Statistical analysis of depression and standard of living was performed using Chi Squared tests; the mood analyses were descriptive in nature.

RESULTS

Among the study population, 75.4% were employed, 19.0% were caregivers, and 13.7% had both roles. Descriptive statistics and demographic information for each of the study groups are shown in Table 1.

TABLE 1: Study Group Characteristics and Weighted Demographics

	Caregiver		Non-Caregiver	
	Employed	Non-Employed	Employed	Non-Employed
N	***33,481***	***12,817***	***150,570***	***47,129***
%	***13.7%***	***5.3%***	***61.7%***	***19.3%***
Average Age	43.3	46.0	40.5	44.3
Gender (% Female)	51.8%	61.7%	43.9%	60.8%
Race				
Asian	1.4%	0.8%	1.8%	1.3%
Black	12.6%	14.4%	9.4%	11.8%
Hispanic	12.8%	12.6%	11.0%	15.1%
White	69.1%	67.5%	74.7%	68.3%
Other	4.1%	4.7%	3.1%	3.5%
Education				
Less than High School	7.7%	18.6%	5.6%	18.3%
High School Diploma	27.9%	35.0%	25.6%	33.4%
Tech/ Voc School	7.2%	6.6%	6.5%	6.1%
Some College	24.6%	22.3%	24.2%	22.8%
College Graduate	18.0%	10.3%	21.7%	12.0%
Post Graduate School	14.7%	7.2%	16.4%	7.4%
Monthly Income				
Under $1,000	5.4%	26.0%	4.0%	26.2%
$1,000 to $1,999	13.6%	22.2%	10.9%	20.1%
$2,000 to $2,999	15.1%	14.5%	13.3%	13.6%
$3,000 to $3,999	13.3%	9.8%	12.6%	9.9%
$4,000 to $4,999	11.0%	7.4%	11.8%	7.3%
$5,000 to $7,499	18.5%	9.3%	21.0%	10.7%
$7,500 to $9,999	18.0%	3.3%	9.6%	4.0%
$10,000 and over	15.0%	7.5%	16.8%	8.3%
Marital Status				
Single	21.6%	22.7%	22.8%	23.1%
Married	57.4%	50.7%	58.9%	50.6%
Separated	2.8%	4.3%	2.2%	3.5%
Divorced	11.3%	13.4%	9.8%	12.9%
Widowed	1.9%	4.2%	1.6%	4.5%
Domestic Partner	4.9%	4.8%	4.7%	5.4%

Composite Well-Being Scores

Our analysis demonstrated that there was a significant group-level effect on composite scores, p<0.0001. Specific between group differences also proved significant. Table 2 outlines the weighted mean scores for each of the four study groups; as a benchmark for comparison, the population mean for all respondents (n = 355,334) during the same time period are shown. We found that both the employed caregiver and employed non-caregiver groups had a significantly higher composite mean than either the non-employed caregiver or the non-employed non-caregiver groups. Within each employment status, the composite mean for non-caregivers was significantly higher than for caregivers.

Sub-Index Scores

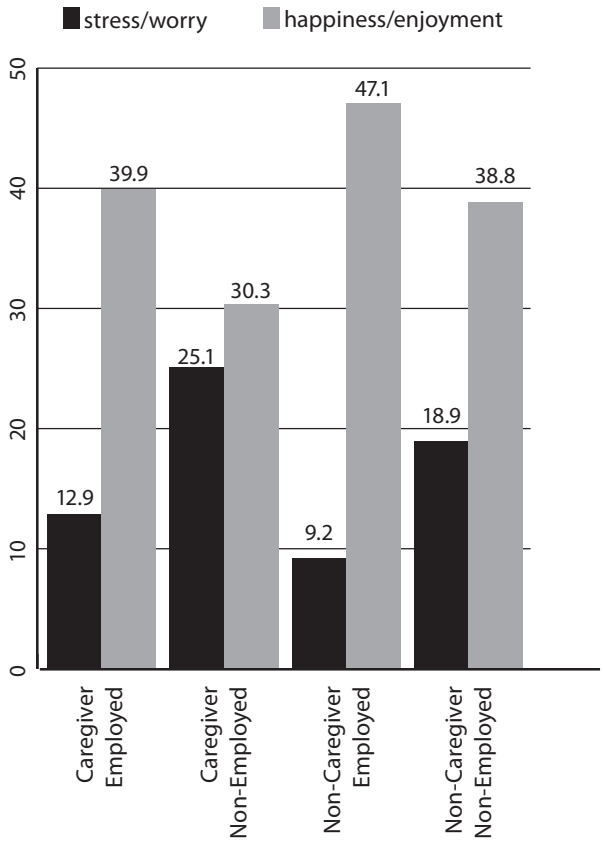
The group-level effect proved significant (p< 0.0001) for each of the domains of well-being. With the exception of the Healthy Behavior Index, average scores for these sub-indexes followed the same pattern as the composite score, and all between group differences were statistically significant. Scores on the Healthy Behavior Index were different from the other domains in that employed caregivers had higher average scores than employed non-caregivers, although these groups remained the top two in this score ranking. Additionally, for the Healthy Behavior Index the difference between the non-employed caregiver group and non-employed non-caregiver group means was not significant, as it was for the other sub-indexes.

Specific Survey Items

Daily Mood

The GHWBI defines daily mood by measuring the percentage of respondents who, on the day before they were surveyed, experienced a lot of happiness and enjoyment without a lot of stress and worry compared with the reverse of this – the percentage of individuals experiencing a lot of worry and stress without any happiness and enjoyment. Overall, a larger percentage of respondents in the employed non-caregiver group reported experiencing a lot of happiness and enjoyment and a lower level of worry and stress when compared to the other groups. The employed caregiver and non-employed non-caregiver groups had similar percentages reporting a lot of happiness and enjoyment; however, of these two groups the non-employed non-caregiver group had nearly a six percentage point higher rate of worry and stress. The non-employed caregiver group had the least favorable scores in both measures of mood (Figure 2).

FIGURE 2: Daily Mood Comparison



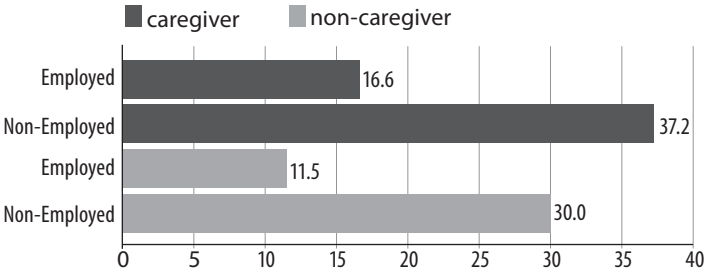
Depression

A comparison of the percent of respondents diagnosed with depression among the four groups found a significant effect (p < .0001); however, the effect size was small, V = .14. As shown in Figure 3, the non-employed caregiver group had a significantly higher percentage of individuals diagnosed with depression than any other group. The two employed groups had a significantly lower rates of depression compared with the non-employed groups (Figure 3).

TABLE 2: Average Composite and Sub-Index Well-Being Scores

	Caregiver		Non-Caregiver		National
	Employed	Non-Employed	Employed	Non-Employed	
Composite Score	64.39	57.15	68.00	62.14	65.74
Life Evaluation Index	39.50	25.26	47.29	32.77	40.80
Emotional Health Index	77.35	67.24	81.00	72.62	79.07
Physical Health Index	76.74	61.16	82.26	67.92	76.90
Healthy Behavior Index	62.43	60.38	61.34	60.77	63.66
Work Environment Index	49.47	n/a	51.19	n/a	51.41
Basic Access Index	80.83	71.71	84.95	76.62	82.58

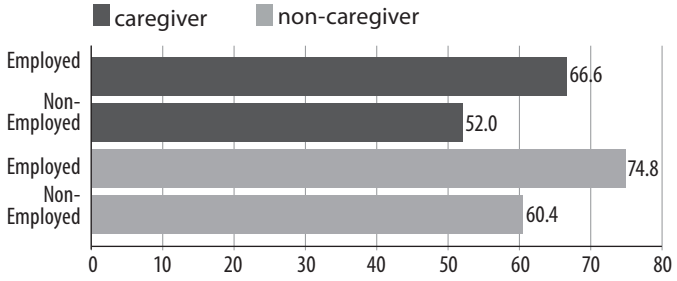
FIGURE 3: Percent Diagnosed by a Physician with Depression



Standard of Living

Examination of the percentage of individuals satisfied with their standard of living found significant differences among the groups ($p < .0001$) with a medium effect size, $V = .23$. The employed non-caregiver group had a significantly higher percentage of reported satisfaction compared with the other groups. The non-employed caregiver group had the lowest standard of living satisfaction rating, which proved significantly lower than the other groups (Figure 4).

FIGURE 4: Percent Satisfied with Their Standard of Living



DISCUSSION

The results of our analyses revealed a definitive pattern of well-being among the four study groups categorized by employment and caregiver status. For all measures but one, the employed non-caregiver group showed the most favorable score. Conversely, the non-employed caregivers consistently had the lowest well-being of the four groups. Employed caregivers typically had higher measures of well-being than the non-employed caregivers.

The one exception we found to the general pattern in the findings was for the Healthy Behavior Index. In this domain, we found that the employed caregiver group had a higher average score when compared to the employed non-caregiver group. Specifically, employed caregivers were more likely to be non-smokers and to regularly eat fruits and vegetables and exercise. The caregiving role may contribute to this effect by providing a more concrete perspective on the consequences of poor health and the value of preventive care. Another possible explanation is a "spillover effect" of caring for the health of another person, thereby creating a change in the caregiver's own personal health habits and mindfulness. For example, it is often easier to cook one healthy meal and follow the diet prescribed for the caregiving recipient rather than to cook two separate meals. A significant difference did not emerge between the two non-employed groups. Previous research has shown that caregiving is associated with certain healthy behaviors, but not others and that level of caregiving effort may influence the likelihood of engaging in healthy behaviors.[15 18] Further research will be necessary to elucidate the interplay of factors among the groups that impact healthy behaviors.

We found that employment was associated with greater well-being among both caregivers and non-caregivers and appeared to have a greater overall impact on well-being measures than did the caregiving role. This association could result from general differences in the characteristics of the groups. For example, employed respondents in this study were younger, on average, than non-employed respondents. However, employment can benefit the caregiver in multiple ways. First, time spent at work serves as a respite from the responsibilities of caregiving. A study of female employed caregivers found that greater time investment in work buffered the women from the negative effects of caregiving stress.[16] Second, working adds to the financial and social resources available to the caregiver – resources that are generally in greater supply for individuals who invest more time in their job.[16] Consistent with this finding, our results showed higher basic access scores among employed individuals, indicating that they were more likely to have access to fresh fruits and vegetables, healthcare, medicines, and to be satisfied with the city where they live.

Although employment can be beneficial to caregivers, the reverse is generally not true. We show here that caregiving was associated with additional stress, which is consistent with prior findings that work performance and employee retention are negatively affected when workers take on the role of caregiver.[7, 9, 17, 18] However, employers have the opportunity to mitigate these effects through workplace policies and programs that provide options for adapting work routines to complement caregiving responsibilities.[19] Caregivers in jobs that provide access to flexible hours, unpaid family leave, and paid sick or vacation days are more likely to remain employed and maintain work hours over a two-year period.[8] Additionally, workplace wellness programs can provide an outlet and resource to help employees maintain their well-being during stressful or difficult times, which proved more common among caregivers. According to recent estimates, 88% of firms with 200 or more employees have one or more wellness program offering;[20] these programs may contribute to the positive association between employment and well-being.

While employment and caregiving can both prove stressful, they can also prove rewarding. Previous research indicates that satisfaction with caregiving and satisfaction with work were directly associated with better well-being, beyond the effects of stress in both roles.[16] However, while we found

that among workers, caregivers tended to have healthier behaviors, this difference did not prove sufficient to impact the overall physical health of the caregiving employees. This was demonstrated in the higher physical well-being scores for the employed non-caregivers compared to employed caregivers. It is possible that the health benefits of behavioral changes made during a period of caregiving will accrue to better physical health over time, subsequent to the caregiving role. Future research should address the long-term impact of caregiving on physical health.

Based on our findings, clinical depression may be a factor that contributes to lower well-being among non-employed individuals. We found that lack of employment was more strongly associated with a diagnosis of depression than caregiving status. However, non-employed caregivers, once again, had the lowest well-being ratings of the four study groups. While this result may lead one to infer that lack of employment has a greater impact on depression than caregiving, caution should be exercised in making this assumption. It is also possible that individuals with depression are less likely to find and keep a job, thus contributing to their non-employment status.[21] What is apparent from this analysis is that individuals who are caregivers and non-employed may need additional help or resources in order to continue providing adequate care for their dependents.

Finally, while this study examined the facets of well-being associated with employment and caregiving, we did not look at specific characteristics of the caregiving population that may also impact well-being. Some of these factors include the relationship of the caregiver to the recipient, the number of hours spent caregiving, whether the recipient lives with the caregiver, and whether or not caregiving responsibilities are shared with others. Incorporating these additional considerations into the analysis could enhance understanding of caregivers and how these responsibilities impact the different aspects of well-being. In addition, it may be useful in future research to examine both the well-being of the recipient as well as the caregiver to elucidate how these roles interact and any support provisions that could improve quality of life for individuals in either position.

In conclusion, caregiving is associated with negative emotional and physical consequences, including a much higher rate of depression. Our findings also suggest that within the working population, caregivers have a less positive work experience, overall, compared to non-caregivers. However, it is interesting to note that while caregiving negatively impacts the caregiver's work experience (compared to other workers who are non-caregivers), having paid work appears to positively impact the caregiver in other areas of well-being (compared to other caregivers who are not working). Thus, well-being appears to be more closely related to employment status than to caregiving status and being non-employed may have a greater negative impact on overall well-being than playing the role of caregiver.

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