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Satisfaction with life domains in people with epilepsy[★]

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Abstract

While commonly used quality-of-life instruments assess perceived epilepsy-associated limitations in life domains and formally document patient concerns, less is known of community-dwelling adults with epilepsy about their satisfaction with broader life domains, such as satisfaction with housing, education, neighborhood, ability to help others, and achievement of goals. The purpose of this study was to examine satisfaction with life domains in a representative sample of community-dwelling adults with self-reported epilepsy from the 2008 HealthStyles survey. Following adjustment for sex, age group, race/ethnicity, education, and income, people with epilepsy were more likely to report frustration in the domains of achievement (e.g., dissatisfaction with education and life goals), compromised social interactions (dissatisfaction with family life, friends, and social life), and compromised physical capability (dissatisfaction with health and energy level). Life satisfaction and other well-being domains can supplement health indicators to guide treatment and program services for people with epilepsy to maximize their well-being.

Keywords

Quality of life; Well-being; Population surveillance; Epilepsy

1. Introduction

People with epilepsy, especially those with active seizures, report significantly worse quality of life than those without the disorder [1,2]. They also face substantial additional challenges, including lower levels of education, household income, and employment; more disability; fair or poor health; and more risky behaviors [1–5]. They are more likely to perceive limitations in their social and emotional support, and dissatisfaction with life overall [1]. Neurobiological and psychological factors have an adverse impact on quality of life in patients with epilepsy [6,7]. While commonly used quality-of-life instruments for epilepsy

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in clinical settings assess perceived epilepsy-associated limitations in life domains (e.g., work, social relationships, physical health, and mental health) and formally document patient concerns [8–10], less is known of community-dwelling adults with epilepsy about their satisfaction with broader life domains, such as satisfaction with housing, education, neighborhood, ability to help others, and achievement of goals. Social factors (e.g., neighborhood or economic conditions) impact health beyond what is obtained through medical care alone [11].

Global life satisfaction and domain-specific satisfaction are considered cognitive components of well-being, because they involve an evaluation of the conditions of one's life [12,13]; they contrast with the affective components (feelings) of well-being. Life satisfaction has been examined in population-based surveys in the United States and internationally for many years [14–17]. Life satisfaction judgments have been found to be relatively stable around an individual set point influenced by genetics and personality, but life satisfaction judgments are sensitive to life events (e.g., death of spouse, unemployment, family member's illness, disability, and childbirth) and are associated with social conditions (e.g., economic recession) [18]. Life satisfaction can predict longevity [19] and suicide [20]. Assessment of domain-specific life satisfaction is important because it provides important additional contextual information about the social and cultural factors that affect how people perceive themselves and their circumstances [6,21,22]. For public health and epilepsy service providers, such assessments offer increased understanding of unmet needs in specific life areas. In 2008, the Centers for Disease Control and Prevention (CDC) examined well-being scales and single items (e.g., global happiness; domain-specific life satisfaction) for public health surveillance [23]. The purpose of this study was to examine satisfaction with life domains in a representative sample of community-dwelling adults with self-reported epilepsy. The hypothesis was that adults with epilepsy would more likely report dissatisfaction across most life domains than would adults without epilepsy.

2. Methods

2.1. Porter Novelli's HealthStyles survey

The HealthStyles survey, conducted annually since 1995, is designed by Porter Novelli. It is used to assess people's attitudes and beliefs about chronic and infectious diseases; health behaviors and risks; exposure to health information and communication campaigns; and self-reported symptoms, diseases, and disorders. The survey is conducted in a nationally representative sample of ~5400 community-dwelling adults and gives comparable prevalence estimates on risk factors with those from the Behavioral Risk Factor Surveillance System, which randomly samples respondents [24]. The Centers for Disease Control and Prevention and Substance Abuse and Mental Health Services Administration programs have licensed data from HealthStyles to validate attitudinal questions for public health survey research [25,26].

The overall survey, Styles 2008, is based on the results of four consumer mail panel surveys administered in three waves. Synovate, Inc., whose consumer mail panel contains approximately 340,000 potential respondents, conducts the sampling and data collection for these surveys. Respondents are recruited to join the mail panel through a four-page

recruitment survey. In return for their participation, respondents receive a small monetary incentive (cash or coupon totaling less than \$5) and are entered into a sweepstakes with a first-place prize of \$1000 and twenty second-place prizes of \$50.¹ The initial wave – *ConsumerStyles* – fielded from May through June 2008, involved stratified random sampling to generate a list of 20,000 potential respondents. The main sample ($N=11,000$) was stratified on region, household income, population density, age, and household size to create a nationally representative sample. Two supplements to this sample were used to ensure adequate representation of low-income and minority groups ($N=3000$) and of households with children ($N=6000$). In 2008, 10,108 people completed the *ConsumerStyles* survey, yielding a response rate of 50.6%.²

The second wave, administered from July through August 2008, consisted of the *HealthStyles* survey. Of 7000 *HealthStyles* surveys sent to households that returned the *ConsumerStyles* survey, 5399 adults (response rate=77.1%) participated in the *HealthStyles* survey. The survey included a number of well-being scales and items [23]. Domain-specific life satisfaction questions focused on satisfaction with (“your”) education; present job or work; well-being from spiritual, religious, or philosophical beliefs; housing; family life; health; friends and social life; neighborhood; ability to help others; achievement of goals; leisure; physical safety; and energy level. Respondents indicated their level of satisfaction with these life domains on a 10-point scale, where 1=very dissatisfied and 10=very satisfied; for the analysis, these scores were grouped into three categories—dissatisfied (1–4), neutral (5–6), and satisfied (7–10).

To avoid order effects, well-being scales and items were interspersed throughout the survey in the following order: Section 1 of the survey (“Attitudes”) posed a series of questions on various health beliefs (e.g., “*Keeping cuts clean and covered, washing hands regularly, and not sharing personal items like towels can help prevent the spread of MRSA;*” “*Treatment can help people with mental illness lead normal lives.*”). This section also included a question on global life satisfaction. Immediately before the global life satisfaction question was the following question, “*People with atrial fibrillation or missed or extra heart beats are at an increased risk of stroke.*” Immediately after the global life satisfaction question come the domain-specific life satisfaction questions. Section 2 of the survey (“Your Health”) included the questions on self-rated health, activity limitations, and self-reported diseases and disorders (“During the past year, have you had (or do you currently have) any of these health conditions?”). “Epilepsy or Seizure disorder” was one of 23 conditions asked about in the survey; an affirmative response to this question identified those with epilepsy for this study. Questions on self-reported epilepsy have been shown to have good validity for identifying individuals diagnosed with epilepsy [27]. The third section of the survey asked questions on behavioral risk factors, nutrition and physical activity.

Data were weighted to estimate population parameters. Survey Data Analysis statistical software was used for analysis. Adjusted percentages of responses to each item for select

¹ *ConsumerStyles* and *HealthStyles* respondents were entered into a sweepstakes for their participation in the corresponding survey.

² The response rate for the nationally balanced sample was 53.0%. The response rates for the minority/low income and households with children supplements were 50.4% and 46.0%, respectively.

subgroups were estimated using logistic regression after controlling for gender, age, race/ethnicity, education, and household income. Adjusted percentages (“predicted marginals”) estimate percentages of different levels of the dependent variable (e.g., different levels of agreement of satisfaction with housing) controlling for all other explanatory variables in the model (e.g., age and sex) [28]. The results are presented on the preferred scale of interest (e.g., percent agreement/disagreement) rather than on a calculated measure of association (e.g., regression coefficient). There is no loss of data because adjusted percentages present estimates for all levels of an independent variable rather than for all but one level relative to a reference category (e.g., using white as a racial/ethnic reference group). Adjusted percentages also remove the difficulties of interpretation of measures of association (e.g., regression coefficients and odds ratios) for those less familiar with interpreting these measures [28]. Non-overlapping 95% confidence intervals of adjusted percentages identify statistically significant differences in such percentages across subgroups, generally comparable to a statistical significance level of 0.007, that also partially adjust for multiple comparisons (similar to adjustment factors used when calculating p-values in multiple comparisons) [29]. Adjusted proportions (adjusted for gender, age, race/ethnicity, education and household income) were also estimated to examine within-group differences in life satisfaction domains.

3. Results

About 1% [95% CI=0.8–1.6] of adults reported a history of epilepsy (Table 1). Almost half of adults with epilepsy lived in households with annual incomes \$24,999, compared with about one quarter of those without epilepsy, while fewer adults with epilepsy lived in households with annual incomes \$60,000. Less than half of adults with epilepsy owned their own homes, compared with almost three quarters of those without epilepsy. About half (49.7%) of adults with epilepsy rented their homes, compared with about 21% of those without the disorder. More of those with epilepsy identified themselves as retired or homemakers (18%) than those without epilepsy (5%). About 47% of adults with epilepsy reported fair or poor health compared with about 18% of adults without epilepsy.

After adjustment, no statistically significant difference in satisfaction with overall life was seen in adults with epilepsy compared with adults without the disorder; however, the adults with epilepsy were less likely to be satisfied with most life domains (Table 2). Adults with epilepsy were significantly more likely than those without epilepsy to be dissatisfied with their education (31% vs. 14%), their family life (28% vs. 11%), their health (42% vs. 15%), their friends and social life (36% vs. 12%), the achievement of their goals (32% vs. 15%), and their energy levels (38% vs. 21%). Adults with epilepsy were significantly less often satisfied, but not significantly more often dissatisfied, with their ability to help others than were those without epilepsy. Upon examination of the distribution of responses, most adults who were dissatisfied with their family life were also dissatisfied with their friends and social life; those dissatisfied with their education were also dissatisfied with the achievement of their goals; and those dissatisfied with their health were also dissatisfied with their energy levels (data not shown).

In general, adults with epilepsy were more likely to be dissatisfied with life as a whole if they were living in households with incomes <\$25,000, were of other race/ethnicity, had high school degree, or were 45–54 years old. Adults with epilepsy were more likely to be dissatisfied with their education if they were black or of other race/ethnicity, were living in households with incomes between \$25,000 and \$59,999, had 1–3 years of college, or had high school degree. Adults with epilepsy were more likely to be dissatisfied with their job or work if they were male, black, of other race/ethnicity, between 18 and 44 years of age, had high school degree, or living in households earning <\$25,000/year. Adults with epilepsy were more likely to be dissatisfied with their leisure time if they were between 45 and 54 years of age, had high school degree, or were living in households earning <\$25,000/year. Adults with epilepsy of other race/ethnicity, those 18–44 years of age, those with <\$25,000 annual household incomes, and those with 1–3 years of college or high school degree were less likely to be satisfied with their spiritual and philosophical beliefs. Adults with epilepsy were more likely to be dissatisfied with their family life if they were of other race/ethnicity, 54 years of age, living in households with incomes <\$25,000/year, or had high school degree. The same general pattern was seen for satisfaction with friends and social life, achievement of goals, and satisfaction with ability to help others with the exception of 45–54 year olds being more dissatisfied with their ability to help others than other age groups.

Adults with epilepsy were more likely to be dissatisfied with their housing if they were 18–44 years of age, lived in households with annual incomes <\$60,000, or had high school degree. They were more likely to be dissatisfied with their neighborhood overall if they were non-white, were 18–44 years of age, lived in households earning <\$25,000/year, or had high school degree. Adults living in households earning <\$25,000/year, those of other race/ethnicity, and those with high school degree were more likely to be dissatisfied with their physical safety. Adults with epilepsy were more likely to be dissatisfied with their health if they were of other race/ethnicity, lived in households with annual household incomes <\$25,000, or had lower levels of education. Adults with epilepsy were more likely to be dissatisfied with their energy levels if they were white, of other race/ethnicity, lived in households earning <\$25,000/year, or had lower levels of education.

4. Discussion

To our knowledge, this is the first study examining satisfaction with specific life domains in a representative sample of community-dwelling adults with epilepsy in the United States. Findings in relation to epilepsy prevalence and differences by household income and self-rated health were comparable to other studies [1,4]. More adults with epilepsy in this study reported being satisfied with life, contrary to previous studies [1]. This might be due to different response scales used in this study (10-point response scale) compared with other surveys (5-point response scale used in the Behavioral Risk Factor Surveillance System) [1]. But, adults with epilepsy reported substantial frustration in the domains of achievement (e.g., dissatisfaction with education and life goals) and compromised social interactions (e.g., dissatisfaction with family life, friends and social life) set upon a foundation of compromised physical capability (dissatisfaction with health and energy level).

Among adults with epilepsy in support groups, perception of self-discrepancy (i.e., actual vs. desired life circumstances) regarding fulfillment in life domains (e.g., good family life; leisure time; material security) was the strongest predictor of poor well-being, followed by time since diagnosis, employment, a diagnosis of absence seizures, and seizure frequency [22,30,31]. Achievement of goals may be associated with self-regulation assets and skills such as motivation, self-efficacy, and locus of control—all potentially compromised by the unpredictability of seizures and treatment side effects (e.g., lethargy and cognitive impairment) [32]. Factors that undermine the autonomous regulation of behavior might obstruct the successful pursuit and achievement of individual goals and have an adverse impact on well-being [33,34]. If present, however, these individual factors may interact with structural barriers over the life course, such as institutional limitations (e.g., job restrictions, recreational restrictions, and drivers' license restrictions) and stigma that people with epilepsy face—contributing to a cycle of thwarted life outcomes. For example, while many individuals with epilepsy are of normal or above normal intelligence, as a group, they generally have more cognitive dysfunction (e.g., problems with concentration and memory) than people without epilepsy [35]. In this sample of adults with epilepsy, the significant dissatisfaction with education reported might be associated with memory difficulties associated with medication side effects and seizures, missed school days interfering with performance, and also with the quality of schooling before implementation of the 1973 Rehabilitation Act (Section 504) and the 1990 Individuals with Disabilities Education Act (IDEA), and subsequent statutes [36,37]. Section 504 prohibits discrimination on the basis of disability in any program or activity conducted or supported by Federal agencies [36]. Requirements common to Section 504 include reasonable accommodation, program accessibility, and supplementary aids [36]. The 1990 Individuals with Disabilities Education Act is a U.S. law ensuring quality and appropriate special education services for children with disabilities in need of special education [37]. Some adults with epilepsy might have faced barriers to inclusive educational settings, substandard educational curricula relative to possible learning disabilities, alternate achievement standards,³ or other school-related restrictions (recreational restrictions), and stigma that inhibited the acquisition of satisfactory educational skills and knowledge. Moreover, some schools may not be able to effectively implement individualized education plans [38]. Education contributes to well-being by helping people reach their goals and adapt to challenges [21]. How satisfaction with education varies by individual level and structural factors merits more study in larger samples of people with epilepsy. Improving seizure control through effective treatment might improve educational experiences and achievement. Narrowing the gap in dissatisfaction with education might also be achieved through increased awareness of and accountability for protections afforded under Section 504 and IDEA to better accommodate the needs of students with epilepsy in schools. Additional school-based educational training such as, “Seizures and You: Take Charge of the Facts,” an epilepsy awareness program to educate students and school staff about epilepsy, might improve the social environment for students with epilepsy and confer a more satisfying educational experience [39].

³The regulations promulgated under section 1111(b) (1) of the Elementary and Secondary Education Act [ESEA] permit states to use alternate achievement standards to evaluate the performance of a small group of children with the most significant cognitive disabilities who are not expected to meet grade-level standards even with the best instruction. Source: <http://www.thompson.com/images/tpg/nclb/titleia/g4852-q&as-hqt-disabilities-jan2007.pdf>.

Positive interpersonal relationships are an important source of well-being [40]. About the same proportion of people with epilepsy was married or living with a partner in this national study, contrary to some state-based samples [1,4]. Adults with epilepsy in this study were two to three times more likely to be dissatisfied with their family life and friends and social life. About 20% of adults with a history of epilepsy and 40% of adults with active epilepsy (on anticonvulsant medication or having had a recent seizure) report sometimes, rarely, or never receiving emotional support [1]. Unmarried people with epilepsy and poor social support reported lower levels of global life satisfaction, compared with married adults with epilepsy and good social support [41]. These findings highlight a gap in the perception of quality emotional ties in some adults with epilepsy. A sense of dependence and limited ability to reciprocate supportive behaviors might result in the lower levels of satisfaction with family life and satisfaction with friends and social life. Moreover, epilepsy is associated with considerable stress, stigmatization, psychiatric comorbidity, marital problems, and other negative consequences (low self-esteem, anger, guilt) for various family members [42]. The impact of epilepsy reaches beyond the individual affected, and the social exchange in a family may mediate improvements in the quality of support exchanged among family members. For example, the “You Are Not Alone Toolkit” developed by CDC and its partners targets parents of teens with epilepsy to improve parents’ coping skills and communication between parents and teens with epilepsy [43]. Support groups offered through epilepsy partner organizations might improve coping skills and the quality of social exchange for family members of those with epilepsy. Other individual skill training, such as active constructive responding, might improve positive communication and emotional experiences between family members and friends and lead to greater well-being [44].

The lower level of satisfaction with health and energy level in adults with epilepsy in this study parallels other findings on impairments in quality of life and in self-rated health [1,3]. The level of seizure control, the type of epilepsy treatment, and the presence of comorbid mental illness were unknown in this sample. Similar data from the 2004 HealthStyles survey found that adults with epilepsy were almost 2 times more likely than those without epilepsy to have experienced depression or anxiety in the past year [45]. Long-term average mood and life satisfaction are strongly correlated, and long-term mood is a stronger predictor of life satisfaction than current mood [46]. It is possible that chronic depressive disorder may explain some of the associations seen in this study—especially regarding dissatisfaction with health. These findings highlight a need to inquire into the perceived health status of adults with epilepsy to assess seizure control, adverse treatment side effects, and untreated disease comorbidity (e.g., mental illness) that might impact satisfaction with health and energy level. For example, among community-dwelling adults with epilepsy and psychological distress, 84% perceived a need for mental health care in the past year, but only 57% had seen a mental health provider in that time [47]. About 27% of adults with active epilepsy and seizures reported not seeing a neurologist or epilepsy specialist in the previous year, suggesting a treatment gap in appropriate epilepsy care [1,47] that can adversely impact actual and perceived health status.

The findings noting that household income, education, mid-life age ranges, and being of some racial/ethnic groups were associated with lower levels of satisfaction in adults with epilepsy were consistent with other studies of the general population [23]. These findings

add to other population-based studies demonstrating health disparities in people with epilepsy [1], and they demonstrate the influence of social factors on health and well-being in people with epilepsy. Community health workers, such as those used in the Vermont Blueprint for Integrated Health Services demonstration model, partner with clinical providers and health and social service organizations to address financial, economic and social challenges adults with chronic diseases face that prevent them from effectively managing their chronic conditions [48]. Such a model might be effective in reducing health disparities and improving well-being in people with epilepsy.

4.1. Limitations

This study has several limitations. First, these are self-reported measures, and recall or other response biases might have occurred. The lack of follow-up questions on epilepsy precluded an analysis on adults with active seizures, so these findings may underestimate dissatisfaction with life because the sample includes people whose epilepsy may be in remission or who no longer have the disorder. Second, these data are cross-sectional, so that no causal associations can be made between satisfaction with life domains and associated variables. However, it is more likely that epilepsy developed in a person before dissatisfaction with specific life domains. Third, while the sampling design was designed to be representative, selection bias arising from differences in participants not accounted for by the sampling weights applied might have occurred (e.g., respondents may have been more optimistic than non-respondents). Fourth, because HealthStyles requires fluency in English, ability to understand written questions, and functional capacity, this study may have excluded adults who did not speak English, those with limited education and literacy, and adults with severe functional limitations. Finally, the small sample size of adults with epilepsy limited the ability to find significant differences across 14 life domains. Despite these limitations, strengths included a large, nationally representative sample of community-dwelling adults with epilepsy allowing for adjustment of potential confounding factors associated with perceived life satisfaction (e.g., household income) and examination of numerous individual, social, and physical domains of life satisfaction.

5. Conclusions

Life satisfaction, in general, and domain-specific life satisfaction, in particular, reveal how people experience their lives by eliciting their perspectives and values [18]. After adjustment, community-dwelling adults with epilepsy were more likely than adults without the disorder to experience frustration around meaningful achievement, social interactions, health, and energy level. Lower levels of education and household income were associated with dissatisfaction across many life domains and highlight the need to consider the health effects of social factors in people with epilepsy when addressing quality of life [11]. Life satisfaction and other affective components of well-being can supplement health indicators to guide treatment and program services for people with epilepsy and, therefore, to maximize their well-being.

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Table 1

Sociodemographic characteristics by epilepsy status—2008 HealthStyles survey.

	Ever told has epilepsy/seizure disorder	
	Yes N (%) [95% CI]	No N (%) [95% CI]
Total	76 (1.1) [0.8–1.6]	5323 (98.9) [98.4–99.2]
Sex		
Male	39 (55.0) [40.9–68.4]	2369 (48.3) [46.2–50.4]
Female	37 (44.9) [31.6–59.1]	2954 (51.7) [49.6–53.8]
Age (years)		
18–44	18 (39.2) [25.1–55.4]	1717 (49.9) [47.8–52.0]
45–54	32 (30.5) [20.4–43.0]	1604 (19.4) [18.2–20.6]
55	26 (30.2) [19.8–43.2]	2002 (30.7) [29.1–32.3]
Race/ethnicity		
White	43 (54.0) [39.4–67.9]	3621 (68.3) [66.4–70.3]
Black	11 (13.7) [7.0–25.0]	659 (11.8) [10.5–13.2]
Hispanic	13 (13.3) [7.1–23.5]	643 (13.3) [11.9–14.8]
Other	9 (19.0) [7.9–38.8]	400 (6.6) [5.6–7.6]
Education		
High school graduate	28 (31.6) [21.4–43.8]	1709 (29.3) [27.5–31.2]
Some college	30 (36.1) [24.6–49.4]	1943 (38.5) [36.5–40.6]
College graduate	17 (32.3) [20.2–47.3]	1609 (32.2) [30.3–34.1]
Income		
\$24.9K	44 (49.6) [35.6–63.7]	1422 (24.9) [23.0–26.8]
\$25K–\$59.9K	18 (31.5) [19.3–46.9]	1557 (34.2) [32.2–36.4]
\$60K	14 (18.8) [10.6–31.1]	2344 (41.0) [39.0–42.8]
Marital status		
Married or living with partner	48 (48.8) [35.0–62.8]	3793 (61.8) [59.6–64.0]
Widowed/divorced/separated	18 (30.4) [17.8–46.8]	965 (17.9) [16.5–19.3]
Never married	10 (20.8) [10.8–36.1]	565 (20.3) [18.1–22.7]
Employment		
Full-time or self-employed	30 (53.3) [40.3–65.9]	3034 (61.8) [59.8–63.7]
Part-time	7 (8.0) [3.6–16.4]	422 (7.8) [6.7–9.1]
Unemployed	1 (0.9) [0.1–6.2]	134 (2.8) [2.1–3.6]
Disabled, student, not employed	19 (19.7) [12.2–30.2]	1405 (22.3) [20.9–23.8]
Retired/homemaker	18 (18.1) [11.0–28.3]	273 (5.3) [4.3–6.5]
Home ownership		
Owned by you or other in household	42 (47.4) [33.6–61.6]	4247 (74.9) [72.7–77.1]
Rented for cash	29 (49.7) [35.4–64.0]	894 (21.3) [19.3–23.5]
Occupied with no cash rent paid	3 (2.9) [0.9–9.0]	133 (3.7) [2.8–5.0]
Self-rated health		
Good–excellent	32 (52.8) [38.7–66.6]	4229 (82.3) [80.0–83.6]

	Ever told has epilepsy/seizure disorder	
	Yes	No
	<i>N</i> (%) [95% CI]	<i>N</i> (%) [95% CI]
Fair-poor	42 (47.1) [33.4–61.3]	1074 (17.7) [16.4–19.1]

Note. Percentages are weighted; sample size is unweighted. CI = confidence interval.

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Table 2

Level of satisfaction^a with life domains by epilepsy status—2008 HealthStyles survey.

	Epilepsy or seizure disorder					
	Yes (N=76)			No (N=5323)		
	Dissatisfied % (95% CI)	Neutral % (95% CI)	Satisfied % (95% CI)	Dissatisfied % (95% CI)	Neutral % (95% CI)	Satisfied % (95% CI)
<i>"In general, how satisfied are you with your..."</i>						
Life as a whole	23 (11–35)	20 (8–31)	58 (43–73)	13 (11–14)	20 (18–22)	67 (65–70)
Education	31 (17–44)	23 (10–36)	46 (31–61)	14 (12–16)	22 (20–24)	64 (61–66)
Job or work	32 (19–45)	25 (14–35)	43 (29–57)	18 (16–20)	24 (22–26)	58 (55–60)
Spirituality/philosophical beliefs	19 (7–31)	24 (13–36)	56 (42–71)	9 (7–11)	27 (25–29)	64 (61–66)
Housing	23 (12–33)	14 (3–26)	63 (51–75)	13 (11–15)	18 (16–20)	69 (66–71)
Family life	28 (15–40)	18 (6–30)	54 (40–67)	11 (9–12)	17 (15–18)	73 (70–75)
Health	42 (28–56)	27 (13–41)	31 (19–43)	15 (13–17)	20 (18–22)	65 (62–67)
Friends and social life	36 (23–50)	23 (12–34)	41 (26–54)	12 (11–14)	22 (20–25)	65 (63–68)
Neighborhood overall	16 (7–24)	20 (8–32)	64 (51–77)	14 (12–16)	21 (19–23)	65 (63–67)
Ability to help others	12 (5–18)	31 (18–45)	57 (43–70)	6 (5–8)	19 (17–21)	75 (72–77)
Achievement of your goals	32 (20–45)	22 (19–25)	55 (42–68)	15 (13–17)	13 (5–20)	64 (61–66)
Leisure time	26 (13–38)	24 (21–27)	48 (34–63)	14 (13–16)	26 (14–37)	62 (60–65)
Physical safety	13 (5–20)	22 (12–33)	65 (53–77)	6 (5–8)	19 (17–21)	75 (72–77)
Energy level	38 (26–51)	25 (12–37)	37 (23–51)	21 (19–23)	22 (20–24)	56 (54–59)

CI = confidence interval.

^a Adjusted for sex, age group, racial/ethnic group, education, income; percentages are weighted; sample size is unweighted.