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LIFE-CYCLE SQUEEZE, TIME PRESSURE, DAILY STRESS, AND LEISURE PARTICIPATION: A CANADIAN PERSPECTIVE

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Research problem, research context, and research questions

Academic and popular publications are paying growing attention to the mounting time pressures and psychological stress affecting people in modern industrial societies (Maslach, 1982; O'Connor and Wolfe, 1987; Rifkin, 1987; Coverman, 1989; Rappaport, 1990; Schor, 1991; Burns, 1993; Robinson and Godbey, 1997; Bertman, 1998). Contrary to optimistic forecasts that life in modern societies will become more leisure-oriented (Kaplan, 1960; Neulinger, 1990), recent national time-budget, workforce, and health surveys indicate that, subjectively, employed people in industrial societies feel more pressed for time than they have in the past (Robinson and Godbey, 1997; Levine, 1998; Zuzanek, Beckers and Peters, 1998). In the U.S., more men and women reported being "always rushed" in 1985 than in 1975 or 1965 (Robinson, 1993). In 1977, 40% of Americans stated that they "never have enough time" to get everything done on the job. By 1997, this figure had risen to 60% (Bondl, Galinsky and Swanberg, 1997). According to the 1992 General Social Survey, over half of Canada's population felt more rushed in 1992 than "five years ago," with the percentages being particularly high for employed women (Zuzanek and Smale, 1997). Reported levels of perceived stress are also quite high in a number of industrialised countries. In the U.S., in 1990 and 1993,
over half of the surveyed population reported experiencing “a lot” or “moderate” stress during the previous year (Zuzanek, Robinson, and Iwasaki, 1998). In Canada, according to the Mental Health at the Workplace Project, in 1984, 60% of respondents said that they experienced “negative stress” during the last year (Work and Well-being, 1984).

It appears that time pressure and stress affect various population groups differently. Symptomatically, in the U.S., employed respondents in the 35 to 44 age group, separated and divorced parents, and members of large families, in particular women, reported considerably higher levels of perceived stress than other social demographic and life-cycle groups.

According to the U.S. 1990 National Health Interview Survey (NHIS), 68.2% of employed mothers in the 35 to 54 age group reported moderate or high levels of life stress, compared to 63.7% of men in the same age and life-cycle category (Zuzanek, Robinson and Iwasaki, 1998). In Canada, 84.2% of employed women aged 25 to 44, with at least one child under the age of 5 at home, reported feeling more rushed than five years ago, compared to 62.5% of employed fathers in the same age and parental situation (Zuzanek and Smale, 1994).

With growing numbers of women entering the labour force, conflicts between work and family roles are increasingly recognized as a source of considerable strain and distress for employed parents, in particular employed mothers (Baruch, Biener and Barnett, 1987). Wilensky (1981), in a broadly conceived analysis of the relationship between life-cycle, work, and quality of life suggested that levels of life satisfaction and emotional stress, for the vast majority of modern men and women, are shaped by the normal pressures of family transitions, as these are “intensified or lessened by variations in taxes, debt, and real incomes, as these, in turn, affect the balance between aspirations and rewards” (1981, p. 255). In particular, Wilensky singled out married couples with small children, people who are divorced or separated, and people who are widowed as groups experiencing the greatest “life-cycle squeeze.”

A number of authors have addressed this issue from the perspective of “role overload” or “multiple role conflict” (Marks, 1977; Kopelman, Greenhouse and Connolly, 1983; Baruch and Barnett, 1986; Coverman, 1989; Pearlin, 1989; Kaufman, Lane and Lindquist, 1991; Greenberger and O’Neil, 1993; Facione, 1994). According to Joner and Fletcher (1993), systematic approaches to the study of the interface between work and family suggest that these two domains cannot be seen as functionally independent. Events in one sphere “impinge” upon the other. Not only do home stressors add to work stressors, but often pressures in one domain exacerbate pressures in the other. According to Greenhouse and Parasuraman (1987), even if the antecedent conditions in the work and non-work domains are not highly stressful in themselves, their “joint occurrence” is likely to produce stress.
The notions of life-cycle and role overload refer, essentially, to the same domain of life-course progression, but from a different perspective. Articles written from a life-cycle perspective usually focus on behavioural progression across the life course, while articles addressing this issue from the role overload or multiple role conflict perspective emphasize the social and psychological effects of conflicting role demands on human time, energy, and health.

The notions of the multiple role conflict or role overload have brought to the forefront researchers' concerns about gender inequalities in the distribution of housework and parental obligations. There is substantial evidence that, notwithstanding some increases in men's contribution to the household, employed women continue to shoulder the major responsibility for housework and child care (Shaw, 1988 and 1991; Thompson and Walker, 1989; Zuzanek, Beckers and Peters, 1998). According to Hochschild (1989), this exposes married employed women to pressures from two jobs — the one in the market and the other at home — resulting in what this author has labelled the "second shift." Not surprisingly, 90% of women, surveyed in a 1992 U.S. Gallup poll, said that the costs of combining work and motherhood are too high (quoted in Noor, 1994).

The social significance of the "time-crunch" phenomenon and rising levels of work and chronic life stress is underscored by the potential links between stress and health. According to Cooper and Cartwright (1994), almost half of all premature deaths in the U.K. can be attributed to lifestyle and stress-related illnesses.

Apparently, stressful situations create temporary hormone disequilibrium which requires extra energy to return to homeostasis. Negative effects of excessive stress (stressors) and subjective strain on mental and physical health have been extensively documented in the epidemiological, public health, and social psychological literature (see McFarlane, Norman, Streiner, Roy and Scott, 1980; Elliot and Eisdorfer, 1982; Kahn, Hein and House, 1982; Kasl, 1984; Kobasa, Maddi, Puccetti and Zola, 1985; Bolger, DeLongis, Kessler and Wethington, 1989; Karasek and Theorell, 1990; Wegeman and Fine, 1990). The often quoted study of Friedman, Glass, Herd, Schneiderman, and Williams (1978) concludes that Type "A" respondents, characterized by elevated competitiveness, sense of time urgency, aggressiveness, and operating under self-imposed stress, are exposed to a heightened risk of cardiovascular disease. An extensive review of the immunological literature concludes that the bulk of the research evidence favours the view that psychosocial variables play an important role in modulating the human immune response (Jemmott and Locke, 1984).

To a number of authors working in the fields of public health, social medicine, sociology, psychology, family studies, and epidemiology, the key component of any effective effort to break the deleterious cycle of "time crunch - stress - psychological strain - negative mental and physical health impacts" is
including coping strategies and lifestyle modification, such as dieting, reduction or ceasing of smoking and alcohol consumption, and last but not least, participation in physically active leisure. Summarizing the results of a study which showed that Canada ranked high on the list of countries with elevated levels of heart disease (fifth for men and eighth for women), Hugh Tunstall-Pedoe stated that it is not genetics that cause cardiovascular disorders but lifestyle (Toronto Star, July 13, 1994).

Statistical and epidemiological evidence suggests that sedentary living habits are “causally related to the incidence of hypertensive-atherosclerotic diseases, especially coronary heart disease, sudden cardiac death, and stroke,” while habitual physical activities lead to a “reduced resting heart rate and lower blood pressure levels” (Paffenbarger, Hyde and Dow, 1991, p. 50). Stephens’ (1988) review of four major U.S. and Canadian health surveys showed a positive association between levels of physical activity, mental health, and well-being. Caltabiano (1995), and Wheeler and Frank (1988) proposed that leisure participation buffers the impact of stress, and Coleman and Iso-Ahola (1993) argued that leisure participation provides social support and is a resource for positive dispositions such as self-determination (hardiness), which in turn contribute to better health. The cardiovascular benefits of leisure have been examined by Froelicher and Froelicher (1991), Van Dooren and De Geus (1993), and others.

However, research evidence with regard to the stress-reducing and health-enhancing effects of leisure, including physically active leisure, is not entirely conclusive (Moses, Steptoe, Mathews and Edwards, 1989; Kirkcaldy and Cooper, 1993; Van Dooren and De Geus, 1993; Iwasaki and Smale, 1998). Based on the analyses of the 1990 U.S. NHIS data, Zuzanek, Robinson, and Iwasaki (1998) reported that participation in physically active leisure reduced levels of self-reported stress mainly for retired respondents, and that the stress-reducing effects of this participation may be life-cycle specific.

The extensive data collected by Statistics Canada as a part of the 1994 Canadian National Population Health Survey (NPHS) provide a welcome opportunity to put to a comprehensive test a number of important health and lifestyle related hypotheses that have been addressed in academic and policy discussions. The availability of corollary data on time use and time pressure, collected as part of the 1992 GSS by the same agency (Statistics Canada), using similar sampling procedures, offers an opportunity to examine the possible effects of “time squeeze” on stress by comparing the life-cycle distribution of stress and time pressure across surveys. The leisure participation data from the 1994 NPHS can be used to examine whether the stress-reducing and health-enhancing effects of leisure participation are life-cycle specific. Based on these data, the following questions will be addressed in this article:
a) Which life-cycle groups are most exposed to chronic and personal stress?

b) How does the life-cycle distribution of chronic and personal stress compare with the distribution of combined loads of paid and unpaid work, and subjectively perceived “time pressure”?

c) How does the life-cycle distribution of stress, combined workloads, and time pressure differ by gender?

d) How does participation in physically active leisure affect respondents’ stress levels and health, and does this effect vary for different life-cycle and gender groups?

e) What inferences can be made about the relationship between stress and time pressure based on data collected in two complementary but not identical surveys?

Method

Sample and survey design

The 1994 Canadian National Population Health Survey (NPHS) targeted household residents, 12 years and older, in all provinces of Canada. The sample of the survey consisted of 17,626 respondents at the person level. The NPHS contains comprehensive information about Canadians’ reported stress levels, physical and mental health, and participation in physically active leisure pursuits.

The 1992 General Social Survey (GSS) targeted persons aged 15 years and older. This survey collected diary information about the respondents’ daily use of time, their subjective perception of time pressure (“time crunch”), and participation in selected social and cultural leisure activities (n = 9,815).

Definition of terms and operationalisation of variables

Life-cycle. The notion of life-cycle has been advanced by economists, sociologists and psychologists studying consumer behaviour and family life in an attempt to create a functional alternative to the single-item variables of biological age, gender and marital status which, if considered in isolation, have considerable explanatory limitations (Rapoport and Rapoport, 1975; Campbell, 1981; Osgood and Howe, 1984; Horna, 1985 and 1994; Michelson, 1985; Zuzanek and Smale, 1999). In this article, life-cycle is defined as a composite variable based on age, marital status, employment status, and presence and age of children. The ten life-cycle groups, used in the analyses, include:

1) single unemployed men and women, aged 20 to 34;
2) single employed men and women, aged 20 to 34;
3) married employed men and women, aged 25 to 44, without children;  
4) married employed men and women, aged 25 to 44, with at least one child under 11 years at home;  
5) married men and women caring for family, aged 25 to 44, with at least one child under 11 years at home;  
6) divorced or separated employed men and women, aged 25 to 44, with at least one child at home;  
7) married employed men and women, aged 45 to 64, with at least one child at home;  
8) married employed men and women, aged 45 to 64, without children at home;  
9) married retired men and women, 65 years of age and older; and  
10) widowed retired men and women, 65 years of age and older.

While these groups do not exhaust all possible combinations of age, marital status, and employment status, they focus on large segments of the population with discernible workload and lifestyle characteristics, and approximate the life-course trajectory of a substantial portion of the population.

The cross-sectional nature of the data used in our analyses precludes, strictly speaking, an interpretation of the life-cycle differences as a reflection of life-course progression (for which longitudinal data would be required). Yet, if treated cautiously, life-cycle differences provide an indication of the likely direction of the life-course changes.

Stress. Initially, researchers analysing stress focused on “life events” and work-related stress as precursors of psychological or physical disease. “Life events” studies examined the impact of critical and traumatic events, such as personal injury, death of a spouse or relative, divorce, layoff, loan foreclosure on the respondent’s psychological and somatic condition (see Holmes and Rahe, 1967; Vinokur and Selzer, 1975; Dohrenwend and Dohrenwend, 1978; Johnson and Sarason, 1979; Craig and Brown, 1984; Avison and Turner, 1988; Harris, 1991). Studies of work or occupational stress, on the other hand, focused on specific job stressors such as workload, decision latitude, career development, organizational structure of and relationships at work, utilization of skills, job repetitiveness, physical exertion, shift work, presence or lack of social support, environmental factors, task clarity, job ambiguity and/or feedback, job security, and others (see Karasek, 1979; Cooper and Marshall, 1980; Ivancevich and Matteson, 1980; Elliott and Eisdorfer, 1982).

Eventually, the interests of researchers broadened, with greater attention being paid to less dramatic yet more chronic forms of life stress, including stress in non-work, mostly family situations, which in the past had been dealt with under the heading of daily “hassles” (DeLongis, Folkman and Lazarus, 1988). It has been
recognized that the mundane pressures associated with the demands of ordinary roles form an important component of daily stress. According to Caspi, Bolger and Eckenrode (1987), because daily stressors appear so “ordinary and mundane,” their critical contribution to psychological distress and health outcomes has been underemphasized. Several studies have found that “daily hassles” were, in a number of instances, able to predict health status better than the life-event measures (Coyne, Dakof, DeLongis, Folkman and Lazarus, 1982). It is these stresses of daily and family life on which this article focuses.

In the 1994 NPHS, the stresses of daily life were operationalised as a composite measure of chronic stress (range 0-15). The five sub-components of chronic stress included financial problems, living and housing conditions, family health problems, relationship problems between the partners, and child-related problems. The composite measure of chronic stress reflects an exposure to a variety of heterogeneous life pressures and, as a result, its Cronbach Alpha is relatively low, that is 0.50.

The personal stress measure is a “tighter” measure than chronic stress (Alpha = 0.59), and as will be shown, it is more closely related to the role conflicts of daily life than is chronic stress. Personal stress was constructed as a composite of responses to five questions: (a) Are you trying to take on too many things at once? (b) Is there too much pressure on you to be like other people? (c) Is too much expected from you by others? (d) Is your work around the home appreciated? (e) Are people too critical of you or what you do? The range of the personal stress index is 0 to 5.

In discussing the findings reported in this article, chronic and personal stress are sometimes jointly referred to as daily stress.

**Health.** Two composite measures of mental and physical health are used in the following analyses.

The composite measure of mental health was computed as a summation of distress, depression, and emotional and cognitive well-being, recoded and converted to a 100 point scale (The Alpha for this composite measure is 0.56).

The composite measure of physical health was constructed as a sum of objective health attributes and self-assessed health (range 1-10; Alpha = 0.55). The objective health attributes included ratings of respondents’ vision, hearing, speech, mobility, dexterity, and pain and discomfort (5 = no pain or discomfort to 1 = pain prevents most activities). Scores on these attributes were standardized. The subjective assessment of physical health was based on a single-item question: How would you describe your health status in general? (recoded to 1 = poor and 5 = excellent).

**Leisure participation.** A variable of physically active leisure was constructed using the 1994 NPHS data on the frequency of participation in 20 activities
(e.g., walking for exercise, garden or yard work, swimming, bicycling) during the
previous 3 months. Frequency scores were weighted and converted to a five-point
scale (1 = very infrequent participation to 5 = very frequent participation). These
weighted frequency scores were then used to create a composite index of partici-
pation in physically active leisure. The range of scores on the index is from 0 to 100.

A similar index, based on participation in 36 selected leisure and cultural
activities, was computed from the 1992 GSS data (range 0 to 100).

Time use and time pressure. The 1992 Canadian GSS (Time Use) contains
information about the daily duration of paid work, housework, child and family
care, shopping, as well as travel associated with these activities. This information
was used to construct a composite measure of the combined loads of paid and
unpaid work, which represents an objective measure of “time squeeze” and role
overload pressures. The 1992 GSS also contained a number of questions assessing
respondents’ subjective sense of time pressure. In particular, respondents were
asked how often they felt rushed, how rushed they felt compared to five years ago,
whether they worried about not spending enough time with the family and friends,
felt stressed because of lack of time, did not have time for fun, and others. An
11-item index of time pressure (ITP; range = 0-25; Alpha = 0.76) was constructed
on the basis of these questions (see Zuzanek, 1998). The bivariate correlation
between combined workload and perceived time pressure is 0.33 (p < 0.005)

Analyses

One-way ANOVAs were used to examine the distribution of stress, mental health,
combined loads of paid and unpaid work, subjective perception of time pressure,
mental and physical health, and leisure participation along life-cycle and gender
lines (Tables 1 to 5). For illustrative purposes, the mean values of all indicators
were standardized and plotted in Figures 1 and 2 as ratios (percentage) of group
means above or below the mean for the entire sampled population.

Structural equation modeling was used to examine relationships between
personal stress, mental and physical health, and participation in physically active
leisure within selected life-cycle groups, namely employed parents with small
children, aged 25 to 44 (Figures 3 and 4), divorced or separated mothers, aged 25
to 44 (Figure 5), and married retired respondents aged 65+ (Figures 6 and 7).

Some observations in this article are inferential rather than statistical. The
relationship between time pressure and stress, two critical variables that were each
collected in different surveys, is inferred on the basis of their associations with a
set of identical or similar variables (life-cycle; self-assessed health; leisure
participation) available in both studies. Since no statistical tests are possible, the
conclusions based on such cross-survey inferences should, obviously, be treated
with caution.
Findings

Life-cycle distribution of stress and time pressure

Suggestions that levels of emotional stress are shaped by the normal strains of life-cycle transitions (Wilensky, 1981) and multiple role strain (Coverman, 1989) are only partially supported by the analyses reported in this article.

As seen in Table 1, the divorced and separated respondents, and the unemployed report higher levels of chronic stress than any other surveyed life-cycle group. The retired respondents, on the other hand, experience the lowest levels of chronic stress. However, single employed respondents with no children at home report higher levels of chronic stress than employed parents, aged 25 to 44, with small children, although this latter group carries considerably heavier workload and experiences a greater sense of time pressure (see Table 4).

An analysis of the life-cycle distribution of selected sub-components of chronic stress (Table 1) indicates that the relatively moderate levels of chronic stress experienced by the employed parents with small children are accounted for, primarily, by the absence of serious relationship problems within this group, reasonable living conditions, and only moderate concerns with financial and family health problems. These factors seem to "balance out" the possible pressures of role overload and concomitant "time squeeze." On the other hand, concerns with finances, housing, and personal relations do contribute to the higher levels of chronic stress among the unemployed in spite of their relatively low workloads and lower subjective sense of "time crunch."

The distribution of personal stress across the life course is somewhat different than the distribution of chronic stress. The divorcees report the highest levels of personal stress, and the retirees the lowest. This pattern does not differ from that of chronic stress. However, the employed parents with small children, whose levels of chronic stress are relatively moderate, report high levels of personal stress. The difference between the measures of personal and chronic stress is best illustrated by the contrast between the low levels of personal stress reported by the unemployed and their high levels of chronic stress (Table 1). The stresses of unemployment are not caused by doing too many things at once or facing high expectations from the others, but rather by financial and relationship uncertainties. To the contrary, the high levels of personal stress reported by the employed parents with small children are caused primarily by having to juggle many things simultaneously and the high expectations of others, who do not fully appreciate their problems.

Obviously, life is most stressful when the existential, financial, and emotional uncertainties, captured by chronic stress, combine with the role over-load pressures reflected in personal stress. Not surprisingly, divorcees report the highest levels of both chronic and personal stress, as well as the highest levels of distress and depression (not reported in the Tables).
<table>
<thead>
<tr>
<th>Life-cycle group</th>
<th>n =</th>
<th>Chronic stress (0-15)</th>
<th>Personal stress (0-5)</th>
<th>Financial stress (0-3)*</th>
<th>Living conditions (0-3)*</th>
<th>Family health (0-3)*</th>
<th>Relationship problems (0-3)*</th>
<th>Children problems (0-3)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployed, single, 20-34</td>
<td>173</td>
<td>4.47a</td>
<td>.94a</td>
<td>2.06a</td>
<td>0.63a</td>
<td>0.50ab</td>
<td>1.21a</td>
<td></td>
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<tr>
<td>Employed, single, 20-34</td>
<td>640</td>
<td>3.30b</td>
<td>1.23bc</td>
<td>1.21bc</td>
<td>0.49b</td>
<td>0.42bc</td>
<td>1.14a</td>
<td></td>
</tr>
<tr>
<td>Employed, married, 25-44, no children</td>
<td>641</td>
<td>2.27cd</td>
<td>1.16bc</td>
<td>1.06c</td>
<td>0.39c</td>
<td>0.47abc</td>
<td>0.22b</td>
<td></td>
</tr>
<tr>
<td>Employed, married, 25-44, at least one child &lt; 11</td>
<td>901</td>
<td>2.79be</td>
<td>1.28bc</td>
<td>1.21bc</td>
<td>0.33c</td>
<td>0.42bc</td>
<td>0.31bc</td>
<td>0.51a</td>
</tr>
<tr>
<td>Homemaker, married, at least one child &lt; 11</td>
<td>484</td>
<td>3.21b</td>
<td>1.34c</td>
<td>1.31b</td>
<td>0.40c</td>
<td>0.46abc</td>
<td>0.40cd</td>
<td>0.63a</td>
</tr>
<tr>
<td>Employed, divorced or separated, 25-44, child</td>
<td>415</td>
<td>5.53f</td>
<td>1.82d</td>
<td>2.00a</td>
<td>0.51b</td>
<td>0.58a</td>
<td>1.40e</td>
<td>1.05b</td>
</tr>
<tr>
<td>Employed, married, 45-64, at least one child</td>
<td>508</td>
<td>2.60ce</td>
<td>1.11bc</td>
<td>1.03c</td>
<td>0.22d</td>
<td>0.36bc</td>
<td>.028bc</td>
<td>0.72a</td>
</tr>
<tr>
<td>Employed, married, 45-64, no children at home</td>
<td>579</td>
<td>2.23cd</td>
<td>.99ae</td>
<td>0.70d</td>
<td>0.20d</td>
<td>0.40bc</td>
<td>0.26bc</td>
<td></td>
</tr>
<tr>
<td>Retired, married, 65+</td>
<td>964</td>
<td>1.79f</td>
<td>.50f</td>
<td>0.52d</td>
<td>0.17d</td>
<td>0.25d</td>
<td>0.27bc</td>
<td></td>
</tr>
<tr>
<td>Retired, widowed, 65+</td>
<td>1261</td>
<td>2.10g</td>
<td>.54f</td>
<td>0.63d</td>
<td>0.20d</td>
<td>0.21d</td>
<td>0.51d</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>6583</td>
<td>2.69</td>
<td>1.00</td>
<td>1.01</td>
<td>0.31</td>
<td>0.37</td>
<td>0.51</td>
<td>0.68</td>
</tr>
</tbody>
</table>

Source of data: 1994 NPHS.

Note: Means in the same column that do not share subscripts differ at $p < 0.05$ in the Student-Neuman-Keuls comparison. The measure of chronic stress was adjusted for the respondent's personal situation. Stresses marked by * are sub-components of chronic stress. Financial and family health problems were standardised to a 3-point scale.
The life-cycle variations in time pressure are captured by the distribution of the combined loads of paid and unpaid work and the subjective sense of time pressure, measured by the ITP (Table 4).

Employed parents in the 25 to 44 age group, with small children at home, report higher combined loads of paid and unpaid work than any other life-cycle group. Their combined workload amounts to 72.9 hours per week, that is over 10 hours per day, weekends included. The divorced and separated respondents report 70.5 hours of paid and unpaid work per week. These life-cycle groups also report the highest levels of perceived time pressure, that is 13.9 and 15.4 on a 25-point scale, respectively. Time squeeze declines when children leave the family (empty-nest stage) and in particular after retirement. The lowest combined workloads and the lowest levels of perceived time pressure are reported by retirees and unemployed people.

An across-survey comparison of the life-cycle distribution of combined loads of paid and unpaid work, perceived time pressure, and personal and chronic stress suggests that these measures reflect related, yet different dimensions of daily life (Figure 1). At the earlier stages of the life course, higher overall workloads and a

![Figure 1](image-url)

**Figure 1**

Changing levels of perceived time pressure, chronic stress, personal stress, and mental health by life-cycle group:
Percentage above or below life course mean

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Single</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>60</td>
<td>80</td>
<td>80</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Married, 25-44</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>25-44 child &lt;1</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>25-44 child &gt;1</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>20</td>
<td>80</td>
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<tr>
<td>Retired, married</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Widowed, 65+</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>20</td>
<td>80</td>
</tr>
</tbody>
</table>
heightened sense of time pressure do not necessarily result in higher levels of chronic or for that matter personal stress. At this stage of life, as already suggested, the pressures of role overload may be mitigated by a number of factors, such as the emotional benefits of relatively stable marital relationships, a reasonable financial situation, and the good health typical of young families.

Higher levels of chronic and personal stress reported by the single employed respondents compared to employed childless couples, or the homemakers compared to the employed parents, and the widowed retirees compared to the married retirees (Table 1) suggest that the levels of chronic and personal stress cannot be attributed to role overload alone. Variations in chronic stress are strongly affected by changing material concerns and relationship problems, while variations in personal stress reflect conflicts between respondents' career aspirations, their work and family situation, status ambiguity, as well as multiple role conflicts. The effects of varying role expectations on the life-cycle distribution of perceived "time crunch" and personal stress are particularly apparent when examined separately for men and women.

**Gender differences in life-cycle variations in stress and time pressure**

An analysis of the life-cycle distribution of chronic stress, personal stress, and time pressure, without controls for gender, hides significant differences between men and women with regard to these indicators.

As seen in Table 2, women report higher levels of chronic and personal stress than men in most life-cycle groups. The only notable exception to this pattern are male homemakers, who report higher levels of chronic stress than women. The difference between the male and female homemakers is only marginally significant ($p < 0.1$), but this may be due to a low number of homemakers in this life-cycle group.

According to the time-diary data collected as part of the 1992 GSS, women carry higher loads of paid and unpaid work and experience a higher sense of time pressure than men in all life-cycle groups, save employed childless couples. In this life-cycle group, men rather than women report higher combined loads of paid and unpaid work, but subjectively women feel more pressed for time than men (Table 5).

These gender differences pose a number of questions. Why do women report higher levels of personal stress and time pressure in life-cycle groups which report only marginally higher or even lower workloads than men? Why do male homemakers, whose overall workloads are considerably lower than women's, report higher levels of chronic stress and almost identical levels of personal stress as their female counterparts?
An explanation for these somewhat surprising relationships can be possibly found in the men’s and women’s different valuations of paid work and housework, or more generally, in their varying role expectations. In a study of 60 married couples, Shaw (1988) reported that men associate household tasks with stressful experiences less frequently than women and, in general, tend to define household activities “more positively than women” (p. 335). Housework, in particular child care, is perceived by men as more relaxing and leisurely than by women. Men’s engagement in housework and childcare, unlike women’s, is often associated with a choice rather than inescapable routine. Women’s heightened sense of time pressure and personal stress are thus possibly associated with their low valuation of housework, which forms a large portion of their combined workload.
The fact that male homemakers report considerably higher levels of chronic stress and almost identical levels of personal stress as women may also result from different role expectations. Apparently, participation in a non-traditional role makes the position of a homemaker psychologically more stressful for men than for women, in spite of the men’s lower workload and their greater access to free time.

Gender differences in the distribution of daily stresses and time are also found at the later stages of the life course. Retired widowed men appear emotionally more vulnerable than retired widowed women. As shown in Table 3, widowhood does not increase retired women’s personal stress, nor does it lower their level of mental health. However, it does so for the retired widowed men. Although these differences do not reach statistical significance, they are corroborated by the analyses of the 1986 GSS data, showing that widowhood affects levels of perceived happiness among retired men but not among women (Zuzanek, 1997).

In general, these analyses support the proposition that the distribution of daily stresses along gender lines is affected by normative role expectations as well as role overload pressures. Men and women in the two life-cycle groups most pressed for time, that is the divorcees and the employed parents with small children, do not differ significantly in regard to chronic stress, but show sizeable and statistically significant differences in personal stress. In other words, pressures associated with role overload are more “gendered” than pressures resulting from life-course variations in material constraints and relationship problems.

Life-cycle distribution of mental health, physical health, and leisure participation

The interesting question is, of course, how does the life-cycle distribution of stress and time pressure relate to the distribution of mental and physical health, and leisure participation.

According to Table 2, there is relatively little variation in mental and physical health across the life course. Not unexpectedly, people at different life-cycle stages assess their mental and physical health as adequate relative to their life-cycle and age positioning.

Substantially lower levels of mental health are reported only by the divorcees and the unemployed, who as we know, also report the highest levels of chronic stress. Relatively high levels of mental health are reported at the later stages of the life course, by the employed parents with grown up children, employed respondents in the empty-nest life-cycle stage, and married retirees. The chronic stress levels of these groups are also among the lowest (Tables 1 and 2, and Figure 1).

The life course trajectories of objective health attributes and self-assessed physical health show essentially a monotonic, albeit slow decline from the higher
## Table 3
Life-cycle distribution of chronic and personal stress, and mental health by gender

<table>
<thead>
<tr>
<th>Life-cycle group</th>
<th>$n =$</th>
<th>Chronic stress (0-15)</th>
<th>Personal stress (0-5)</th>
<th>Mental health (0-100)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>Unemployed, single, 20-34</td>
<td>115</td>
<td>58</td>
<td>4.25&lt;sub&gt;a&lt;/sub&gt;</td>
<td>4.91&lt;sub&gt;a&lt;/sub&gt;</td>
</tr>
<tr>
<td>Employed, single, 20-34</td>
<td>385</td>
<td>255</td>
<td>3.32&lt;sub&gt;b&lt;/sub&gt;</td>
<td>3.29&lt;sub&gt;b&lt;/sub&gt;</td>
</tr>
<tr>
<td>Employed, married, 25-44, no children</td>
<td>335</td>
<td>306</td>
<td>2.26&lt;sub&gt;c&lt;/sub&gt;</td>
<td>2.28&lt;sub&gt;cd&lt;/sub&gt;</td>
</tr>
<tr>
<td>Employed, married, 25-44, at least one child &lt; 11</td>
<td>733</td>
<td>168</td>
<td>2.79&lt;sub&gt;bc&lt;/sub&gt;</td>
<td>2.77&lt;sub&gt;bd&lt;/sub&gt;</td>
</tr>
<tr>
<td>Homemaker, married, at least one child &lt; 11</td>
<td>22</td>
<td>462</td>
<td>4.16&lt;sub&gt;a&lt;/sub&gt;</td>
<td>3.16&lt;sub&gt;b&lt;/sub&gt;</td>
</tr>
<tr>
<td>Employed, divorced or separated, 25-44, child</td>
<td>53</td>
<td>362</td>
<td>4.60&lt;sub&gt;a&lt;/sub&gt;</td>
<td>5.67&lt;sub&gt;c&lt;/sub&gt;*</td>
</tr>
<tr>
<td>Employed, married, 45-64, at least one child</td>
<td>404</td>
<td>104</td>
<td>2.57&lt;sub&gt;bc&lt;/sub&gt;</td>
<td>2.74&lt;sub&gt;bd&lt;/sub&gt;</td>
</tr>
<tr>
<td>Employed, married, 45-64, no children at home</td>
<td>385</td>
<td>194</td>
<td>2.26&lt;sub&gt;c&lt;/sub&gt;</td>
<td>2.16&lt;sub&gt;cd&lt;/sub&gt;</td>
</tr>
<tr>
<td>Retired, married, 65+</td>
<td>603</td>
<td>361</td>
<td>1.87&lt;sub&gt;c&lt;/sub&gt;</td>
<td>1.66&lt;sub&gt;c&lt;/sub&gt;</td>
</tr>
<tr>
<td>Retired, widowed, 65+</td>
<td>284</td>
<td>977</td>
<td>2.10&lt;sub&gt;c&lt;/sub&gt;</td>
<td>2.10&lt;sub&gt;cd&lt;/sub&gt;</td>
</tr>
<tr>
<td>TOTAL</td>
<td>3319</td>
<td>3247</td>
<td>2.57&lt;sub&gt;&lt;/sub&gt;</td>
<td>2.82&lt;sub&gt;*&lt;/sub&gt;</td>
</tr>
</tbody>
</table>

Source of data: 1994 NPHS.

Note: Means in the same column that do not share subscripts differ at $p < 0.05$ in the Student-Neuman-Keuls comparison. Means marked with * are statistically different for men and women at $p < 0.05$. 
levels reported by single respondents and young couples, through intermediary levels reported by respondents in the 45 to 64 age category, to lower levels in retirement (Figure 2). These variations reflect the objective reality of aging. However, the relatively low levels of self-assessed health reported by the divorcees and the unemployed (that is relative to their age) suggest that the measurement of self-assessed physical health is not entirely immune to the psychological and mental pressures of stressful life situations.

**FIGURE 2**
Changing levels of perceived time pressure, participation in physically active leisure, cultural leisure, and physical health by life-cycle group:
Percentage above or below life course mean

The life-cycle patterns of participation in physically active leisure (Table 2) and social and cultural leisure (Table 4) are somewhat different (compare Figures 1 and 2). Participation in physically active leisure declines gradually with age, and its life course distribution resembles that of self-assessed physical health. Levels of physically active leisure participation peak at the outset of the life course, and decline towards retirement (see Figure 2). The life-cycle distribution of social and cultural activities shows less variation across the life course, with the exception of retirement, when levels of social and cultural participation decline significantly.
TABLE 4

Life-cycle distribution of combined loads of paid and unpaid work, perceived time pressure, and leisure participation

<table>
<thead>
<tr>
<th>Life-cycle group</th>
<th>n</th>
<th>Paid &amp; unpaid work (hrs/week)</th>
<th>Time pressure index (1-25)</th>
<th>Cultural leisure index (1-100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployed, single, 20-34</td>
<td>105</td>
<td>21.6&lt;sub&gt;a&lt;/sub&gt;</td>
<td>10.5&lt;sub&gt;a&lt;/sub&gt;</td>
<td>24.1&lt;sub&gt;ad&lt;/sub&gt;</td>
</tr>
<tr>
<td>Employed, single, 20-34</td>
<td>783</td>
<td>61.7&lt;sub&gt;b&lt;/sub&gt;</td>
<td>12.5&lt;sub&gt;b&lt;/sub&gt;</td>
<td>27.6&lt;sub&gt;bc&lt;/sub&gt;</td>
</tr>
<tr>
<td>Employed, married, 25-44, no children</td>
<td>446</td>
<td>66.1&lt;sub&gt;b&lt;/sub&gt;</td>
<td>12.5&lt;sub&gt;b&lt;/sub&gt;</td>
<td>28.1&lt;sub&gt;c&lt;/sub&gt;</td>
</tr>
<tr>
<td>Employed, married, 25-44, at least one child &lt; 11</td>
<td>1144</td>
<td>72.9&lt;sub&gt;c&lt;/sub&gt;</td>
<td>13.9&lt;sub&gt;c&lt;/sub&gt;</td>
<td>25.6&lt;sub&gt;ab&lt;/sub&gt;</td>
</tr>
<tr>
<td>Homemaker, married, at least one child &lt; 11</td>
<td>485</td>
<td>60.6&lt;sub&gt;b&lt;/sub&gt;</td>
<td>13.0&lt;sub&gt;bc&lt;/sub&gt;</td>
<td>25.2&lt;sub&gt;abd&lt;/sub&gt;</td>
</tr>
<tr>
<td>Employed, divorced or separated, 25-44, child</td>
<td>69</td>
<td>70.5&lt;sub&gt;c&lt;/sub&gt;</td>
<td>15.4&lt;sub&gt;d&lt;/sub&gt;</td>
<td>28.9&lt;sub&gt;c&lt;/sub&gt;</td>
</tr>
<tr>
<td>Employed, married, 45-64, at least one child</td>
<td>318</td>
<td>65.1&lt;sub&gt;b&lt;/sub&gt;</td>
<td>12.5&lt;sub&gt;b&lt;/sub&gt;</td>
<td>23.1&lt;sub&gt;ad&lt;/sub&gt;</td>
</tr>
<tr>
<td>Employed, married, 45-64, no children at home</td>
<td>338</td>
<td>63.9&lt;sub&gt;b&lt;/sub&gt;</td>
<td>11.1&lt;sub&gt;a&lt;/sub&gt;</td>
<td>22.6&lt;sub&gt;d&lt;/sub&gt;</td>
</tr>
<tr>
<td>Retired, married, 65+</td>
<td>517</td>
<td>29.4&lt;sub&gt;d&lt;/sub&gt;</td>
<td>5.8&lt;sub&gt;e&lt;/sub&gt;</td>
<td>17.5&lt;sub&gt;e&lt;/sub&gt;</td>
</tr>
<tr>
<td>Retired, widowed, 65+</td>
<td>569</td>
<td>24.6&lt;sub&gt;a&lt;/sub&gt;</td>
<td>5.3&lt;sub&gt;e&lt;/sub&gt;</td>
<td>15.6&lt;sub&gt;e&lt;/sub&gt;</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4774</td>
<td>56.4</td>
<td>11.1</td>
<td>23.6</td>
</tr>
</tbody>
</table>

Source of data: 1992 GSS.

Note: Means in the same column that do not share subscripts differ at p < 0.05 in the S-N-K comparison.

An across-survey analysis of the life course distribution of time pressure, mental health, and participation in physically active leisure (reported in Figures 1 and 2), shows some interesting parallels as well as differences.

In the earlier part of the life course, higher levels of time pressure parallel higher levels of mental health. Employed couples with small children or without children report above average or very high levels of time pressure, as well as above average levels of mental health. These busy groups appear to be very "fit" mentally. However, this does not apply to the divorcees. In this group, high levels of time pressure are accompanied by lower levels of mental health (Figure 1). In the later part of the life course, higher levels of mental health correspond with lower levels of time pressure. Yet, this does not apply to retired widowers. Lower levels of time pressure are accompanied by lower levels of mental health also among the...
unemployed. In general, the life-cycle distribution of mental health seems to form an obverse pattern to that of chronic stress, and is "polyvalently" related to the distribution of time pressure (Figure 1).

The life-cycle distribution of participation in physically active leisure shows, with the possible exception of employed parents with small children, remarkable parallels with the distribution of time pressure and personal stress. People who work longer hours and experience greater time pressure apparently engage more actively in physical leisure (Figures 1 and 2).

Inferential across-survey observations, such as the ones reported above, do not allow clear conclusions to be drawn about the relationship between time pressure, personal stress, mental health, and leisure participation. They suggest, however, that these relationships should be examined from a multi-variate perspective. The fact that life-cycle distributions of time pressure, personal stress, and participation in physically active leisure parallel each other, and that the bivariate relationships between these variables are positive\(^2\), suggest that the evidence about the contribution of leisure participation to mental and physical health should be sought within life-cycle groups. It is within these groups that we should be looking for the possible effects of leisure on stress. For this reason, the relationships between stress, mental and physical health, and leisure participation are examined in the following section in the context of specific stages of the life course.

**Relationships between personal stress, health, and leisure in different life-cycle contexts**

The main question addressed in this section is: How does personal stress affect mental and physical health, and if it affects them negatively, can participation in physically active leisure counter these effects? A structural equation modeling (SEM) approach (SPSS 8.0, Amos 3.61) was used to examine a number of models of the structural relations among personal stress, mental health, physical health, and leisure participation in five selected life-cycle groups (employed fathers and mothers aged 25 to 44 with small children; divorced and separated mothers in the same age category; and married male and female retirees, aged 65 and over). The SEM approach allowed: (1) the measurement component of these models (i.e., reliability of variables with multiple indicators) as well as the structural component (relationships between the key variables) to be examined and tested; (2) statistical comparison to determine which of the models fit the data best, and (3) the specification of non-recursive relationships between selected variables (in particular, do mental and physical health mutually influence each other).

Figures 3 to 7 show the measurement and structural components of only those models that were a best fit to the data for each of the life-cycle groups examined. In the models and analyses, personal stress [personal] and participation
in physically active leisure [leisindx] were entered as exogenous (independent) variables. These “observed” variables are displayed as rectangles. Mental Health and Physical Health were treated as endogenous (dependent and/or intervening) variables. As “latent” or unobserved variables, mental health and physical health are displayed as ellipses. The mental health variable is comprised of the separate “observed” measures of distress, depression, and emotional and cognitive well-being, and the latent physical health variable is based on “observed” measures of objective health attributes and self-assessed health. Finally, the circles labeled as e1 to e7 represent variance in the variables not directly observed that may be due to measurement error and/or the influence of variables not measured in the study and not included in the models. All path coefficients are standardized regression coefficients and significant (p < 0.05) unless otherwise indicated.

For none of the life-cycle groups examined was the level of physically active leisure directly related to the level of personal stress or mental health. In other words, higher levels of physically active leisure did not result in lower levels of perceived personal stress, nor directly in higher levels of mental health.

Figures 3 and 4 show the relationships between personal stress, mental and physical health, and leisure participation for the employed parents. Figure 3 indicates that personal stress affects the physical health of employed fathers both directly (path coefficient = -0.20), and indirectly, through its influence on mental health. The path coefficients for the indirect effect are -0.58 between personal stress and mental health, and 0.38 between mental health and physical health. In the case of employed mothers (Figure 4), personal stress affects physical health only indirectly, through its negative influence on mental health. The path coefficient for personal stress and mental health is -0.80, and for mental and physical health 0.77. Personal stress and mental health appear to influence women’s physical health more than men’s.

Contrary to expectations, participation in physically active leisure does not benefit the physical health of employed mothers, and contributes only modestly to the physical health of employed fathers (path coefficient of 0.15). Neither does participation in physically active leisure contribute to the mental or physical health of employed parents by lowering the level of personal stress they experience, failing to support the buffering hypothesis advanced in the literature (Caltabiano, 1988; Wheeler and Frank, 1988).

The structural model for the divorced and separated employed mothers (Figure 5), shows somewhat different relationships between the variables than the model for the employed mothers. (For reasons why no model was constructed for divorced men, see Endnote 1). As with the employed mothers, personal stress affects the mental health of female divorcees negatively (path coefficient of -0.73). Likewise, mental health contributes to the female divorcees’ physical health (path coefficient of 0.70). However, differently than for the employed mothers,
FIGURE 3
Role of Physically Active Leisure in the Relationship Between Personal Stress, and Physical and Mental Health for Employed, Married Men with Children Under 11 and 25-44 Years Old (n=795)

FIGURE 4
Role of Physically Active Leisure in the Relationship Between Personal Stress, and Physical and Mental Health for Employed Women, with Children Under 11 and 25-44 Years Old (n=172)
participation in physically active leisure *benefits* the physical health of the divorced and separated mothers (path coefficient of 0.19). In other words, for the divorced and separated women, increased participation in physically active leisure (see Table 3) does pay off, albeit modestly.

According to Figures 6 and 7, the relationships between personal stress, mental and physical health, and leisure among retired married men and women differ dramatically from those observed among the employed parents (Figures 3 and 4), and other employed life-cycle groups (not reported in the Figures). Figure 6 shows that personal stress affects the mental health of male retirees negatively, but this effect is much weaker than for the employed respondents (path coefficient of \(-0.33\) compared to \(-0.58\)). Mental health contributes positively to the male retirees' physical health (path coefficient of 0.33), but the effect of physical health on mental health is stronger than the effect of mental health on physical health (that is 0.55 compared to 0.33). Also compared to the employed men, participation in physically active leisure contributes substantially to the male retirees' physical health (path coefficient of 0.32).

Similar relationships were observed for the retired married women (Figure 7). While personal stress affects female retirees' mental health and physical health, these effects are relatively small (the respective path coefficients are \(-0.26\)
FIGURE 6
Role of Physically Active Leisure in the Relationship Between Personal Stress, and Physical and Mental Health for Retired Men, Married and Over 65 Years Old (n=692)

FIGURE 7
Role of Physically Active Leisure in the Relationship Between Personal Stress, and Physical and Mental Health for Retired Women, Married and Over 65 Years Old (n=379)
and – 0.15). The retired females’ physical health, on the other hand, affects their mental health strongly (path coefficient of 0.54), suggesting that in the old age physical health is more likely to determine mental health than vice versa. Similar to married male retirees, participation in physically active leisure benefits retired married women’s physical health (path coefficient of 0.31).

**Discussion and conclusion**

The analyses reported in this article suggest that “life-cycle squeeze” (Wilensky, 1981) does indeed exist, and that it adversely affects the lifestyles of a number of life-cycle groups. Divorced or separated employed respondents taking care of children and the unemployed experience particularly high levels of chronic and personal stress, as well as high levels of distress and depression, that is lower levels of mental health (Table 1 and Figure 1).

High levels of chronic and personal stress, and lower levels of mental health may be associated with role overload, long hours of paid and unpaid work, and a heightened sense of time pressure, as in the case of the employed divorced or separated parents. However, stress can also be associated with low workloads and relatively low levels of time pressure, as found for the unemployed.

The effects of role overload and time pressure on chronic and personal stress, and mental health, can be offset by the emotional stability associated with a successful marriage, good physical health, and reasonable financial and living conditions. On the other hand, conflicts between respondents’ emotional, career or social aspirations, and life-cycle related constraints can contribute to a heightened sense of stress, even under the conditions of moderate time pressure, as in the case of the homemakers, and to some extent the single employed respondents. Women experience higher levels of chronic and personal stress, and report lower levels of mental health than men in most life-cycle categories. Part of the explanation for this gender difference lies with women’s generally higher combined workloads of paid and unpaid work, but possibly with their negative perception of housework as well (Shaw, 1988).

The importance of analyzing gender differences with regard to time pressure and chronic stress within life-cycle groups rather than for the entire population is manifested in an interesting paradox reported in Table 5. According to this Table, women report higher combined loads of paid and unpaid work, and higher levels of perceived time pressure than men in all but one life-cycle group. However, combined workloads for the entire population are lower for women (56.3 hours) than they are for men (58.3 hours), and the levels of reported “time crunch” for men and women are identical, that is 11.1. This pattern is, of course, caused by the proportionately larger representation of women among the retirees and homemakers, whose workloads are relatively low. What does this tell us, however, about women’s situation? Should an employed married or divorced mother take
TABLE 5
Life-cycle distribution of combined loads of paid and unpaid work, perceived time pressure, and leisure participation by gender

<table>
<thead>
<tr>
<th>Life-cycle group</th>
<th>GSS 1992</th>
<th>Paid &amp; unpaid work (hrs/week)</th>
<th>Time pressure index (1-25)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>Unemployed, single, 20-34</td>
<td></td>
<td>75</td>
<td>30</td>
</tr>
<tr>
<td>Employed, single, 20-34</td>
<td></td>
<td>436</td>
<td>347</td>
</tr>
<tr>
<td>Employed, married, 25-44, no children</td>
<td></td>
<td>230</td>
<td>216</td>
</tr>
<tr>
<td>Employed, married, 25-44, one child &lt; 11</td>
<td></td>
<td>716</td>
<td>428</td>
</tr>
<tr>
<td>Homemaker, married, one child &lt; 11</td>
<td></td>
<td>17</td>
<td>468</td>
</tr>
<tr>
<td>Employed, divorced or separated, 25-44, child</td>
<td></td>
<td>11</td>
<td>58</td>
</tr>
<tr>
<td>Employed, married, 45-64, at least one child</td>
<td></td>
<td>218</td>
<td>100</td>
</tr>
<tr>
<td>Employed, married, 45-64, no child at home</td>
<td></td>
<td>195</td>
<td>143</td>
</tr>
<tr>
<td>Retired, married, 65+</td>
<td></td>
<td>249</td>
<td>268</td>
</tr>
<tr>
<td>Retired, widowed, 65+</td>
<td></td>
<td>90</td>
<td>479</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>2237</td>
<td>2537</td>
<td>58.5</td>
</tr>
</tbody>
</table>

Source of data: 1992 GSS.

Note: Means marked with * are statistically different for men and women at p < 0.05.
consolation from the fact that, on average, women live longer and work shorter hours than men, or is she going to compare her situation with that of a life-cycle group that is more like "hers"? The answer to this question is obvious, and it is not based on the statistics of "central tendency."

Our analyses show that participation in physically active leisure contributes to physical health directly, but not always when it is most "needed." As suggested by Zuzanek, Robinson and Iwasaki (1998), the moderating benefits of physically active leisure are often present in life-cycle groups "least strained by the psychological pressures of daily life, and are absent in life-cycle groups operating under the greatest stress" (p. 265). The 1994 NPHS data show that the positive contribution of physically active leisure to physical health is the strongest among the retirees, relatively modest among female divorcees and employed fathers, and entirely absent among employed mothers, who carry the heaviest workload of all life-cycle groups. It appears that for the beneficial effects of physically active leisure to "kick in," people have to acquire a certain amount of control over their time, which is often attained only at the later stages of the life course.

The analyses of the relationships between personal stress, and mental and physical health show important life-cycle and age differences. In the earlier stages of the life course, physical health is affected directly by mental health and indirectly by personal stress (Figures 3 and 4). However, the direction of these influences changes in the retirement. For the retirees, it is physical health that affects the level of mental health rather than the other way around. This observation, of course, implies a need for differentiated health protection strategies. The physical health of middle-aged employed people is likely jeopardized by their mental health problems, which are often associated with stress. Retirees, on the other hand, are distressed and depressed because of their poorer health. Engaging in physically active leisure helps maintain physical health in retirement, but with the possible exception of the divorcees, shows little effect on the physical health or stress levels of the employed population. To protect the physical well-being of the employed population, greater attention needs to be paid to the reduction of stress levels, promotion of balanced lifestyles, and implementation of preventative mental health practices.

Inferences based on the across-survey analyses need to be treated with caution, but they suggest useful insights. These inferences, among other things, point to the need to refine and integrate measurements of workloads, time pressure, stress, mental and physical health, as well as various types of leisure participation in a single survey. This strategy will allow researchers to examine the relationships between these factors with the use of comprehensive statistical analyses.

The mounting pressures of working and daily life, in particular as they apply to groups experiencing "life-cycle squeeze," require greater research and policy attention. Leisure, while helpful, can not alone compensate for the structural or
societal constraints associated with life course imbalances in time use, the gender division of labour, and the harried rhythms of daily life typical of modern societies. The solution to the problems of time pressure and daily stress requires control over one’s time, which is predicated on both individuals’ shaping their lifestyles and social-policy intervention.

NOTES

1. No model could be constructed for divorced or separated men, because of the low number of divorced fathers taking care of children.

2. The correlation between personal stress and participation in physically active leisure is .06 (p < .005); and between time pressure and participation in social and cultural leisure activities .11 (p < .005).

REFERENCES


Jiri ZUZANEK et Roger MANNELL

Compression du cycle de vie, pression du temps, stress quotidien et participation aux loisirs : une perspective canadienne

RÉSUMÉ

Le présent article a pour objet l’examen de deux sujets reliés entre eux : d’abord, la relation existant entre le cycle de vie et le stress chronique; puis, les effets de la participation aux loisirs sur le stress et la santé au regard du cycle de vie. Certains soutiennent que les niveaux de pression du temps et du stress perçu dans les sociétés modernes ont augmenté. Ils ajoutent, toutefois, que cette augmentation est répartie, inégalement parmi les différents groupes démographiques, en particulier, les groupes parvenus à différents stades du cycle de vie (Wilensky, 1981; Zuzanek, Robinson and Iwasaki, 1998). On pense également qu’un style de vie actif, plus particulièrement, la participation à des activités de loisir, peut contribuer à réduire les effets négatifs du stress sur la santé. Dans les analyses suivantes, ces deux postulats sont soumis à un test empirique. Les données sur le stress, la pression du temps, la santé et la participation aux loisirs recueillies dans
le cadre de l’enquête de 1994 sur la santé de la population canadienne (n = 17 626) et de celle de 1992, enquête générale sur l’emploi du temps, (n=9,815) sont analysées dans le but d’atteindre les objectifs suivants: a) identifier les groupes d’âge les plus exposés au stress chronique; b) établir une relation entre les stress quotidiens et la pression du temps; c) évaluer les effets de la participation à une activité physique sur le degré de stress et sur la santé physique et mentale des répondants, et enfin d) déterminer le rôle joué par le sexe des répondants dans la relation entre le cycle de vie, le stress, la santé et la participation aux loisirs.

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Life-cycle Squeeze, Time Pressure, Daily Stress, and Leisure Participation: A Canadian Perspective

ABSTRACT

This article addresses two corollary issues, namely, the relationship between life-cycle and chronic stress, and the effects of leisure participation on stress and health, controlled for life-cycle situation. Arguments have been made that levels of time pressure and perceived stress have risen in modern societies, but that these increases are unevenly distributed among different social demographic groups, in particular groups positioned at different stages of the life-course (Wilensky; 1981; Zuzanek, Robinson and Iwasaki, 1998). It has been also suggested that active life-styles, in particular participation in leisure activities, may serve as an effective tool for moderating negative health effects of stress. In the following analyses these two propositions are put to an empirical test. Data on stress, time pressure, health, and leisure participation, collected as part of the 1994 Canadian National Population Health Survey (n = 17,626), and the 1992 General Social (Time-Use) Survey (n=9,815) are examined in an attempt to: (a) identify life-cycle groups most exposed to chronic and personal stress; (b) establish the relationship between daily stresses and time pressure; (c) assess the effects of participation in physically active leisure on respondents’ stress levels and mental and physical health; and (d) determine how the relationships between life cycle, time pressure, daily stress, health, and leisure participation are affected by gender.
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Compresión del ciclo de vida, la presión del tiempo, tensión crónica y participación a las recreaciones: una perspectiva canadiense.

RESUMEN

El presente artículo tiene por objeto el examen de dos sujetos relacionados entre ellos: la relación existente entre el ciclo de vida y la tensión crónica; luego los efectos de la participación en las actividades de recreación sobre la tensión y la salud dentro de una perspectiva de ciclo de vida. Algunos argumentan que los niveles de presión del tiempo y la tensión observados en las sociedades modernas han aumentado. Ellos agregan, sin embargo que esta aumentación es repartida, de manera desigual entre los diferentes grupos demográficos, en particular los grupos situados en diferentes fases de la vida (Wilensky, 1981; Zuzanek, Robinson y Iwasaki, 1998). Se piensa igualmente que un estilo de vida activo, más particularmente la participación a las actividades recreativas, puede ser útil en la reducción de los efectos negativos de la tensión sobre la salud. En los análisis siguientes estos dos postulados son sometidos a un examen empírico. Los datos sobre la tensión, la presión del tiempo, la salud y la participación obtenidas durante el sondeo de 1994 sobre la salud de la población canadiense ($n = 17,626$), y la encuesta realizada en 1992 por General Social (sobre la utilización del tiempo) son analizados con el fin de permitir de alcanzar los objetivos siguientes: a) identificar los grupos de edad más expuestos a una tensión personal y crónica; b) establecer la relación entre la presión crónica y la presión del tiempo c) evaluar los efectos de la participación a una actividad física sobre el nivel de tensión y sobre la salud física y mental de los que respondieron, y finalmente d) determinar el papel desempeñado en función del sexo de las personas que respondieron en relación con el ciclo de vida, la tensión crónica, la salud y la participación a las actividades de recreación.