

RELATIONSHIPS BETWEEN ADOLESCENTS' TIME USE, LEISURE PARTICIPATION, FEELINGS OF TIME PRESSURE, ACADEMIC PERFORMANCE, EMOTIONAL WELL-BEING, AND HEALTH

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Introduction

According to the study *Health and health behaviour among young people*, conducted by the World Health Organisation, "School-aged children, as a defined population group, have until recently been neglected by national and international public health researchers" (WHO, 2000, p. 5). The situation, however, is changing. Broadened definitions of morbidity and heightened concern with emotional health, risk behaviour, sedentary habits, and obesity (Feldman et al., 1999; Adlaf & Ialomiteanu, 2000; Tremblay & Willms, 2000; Schneider, 2000; Allison & Adlaf, 2000), as well as growing awareness of the fact that early child and adolescent development play a critical role in determining adult population health (Dietz, 1998; Wabitsch, 2000), have contributed to the rapid growth of youth advocacy groups and programmes, and an intensified national and international research effort directed at understanding the trends and determinants of adolescent well-being and health.

In the United States, concern with adolescents' emotional health was underscored by the *Report of the Surgeon General's National Action Agenda on Children's Mental Health* (2001). One in ten children and adolescents in the United States suffers from mental illness severe enough to cause some level of impairment. In Canada, the Canadian Institute of Child Health (2001) reports that 5% of males and 12% of females aged 12 to 19 have experienced a major depressive episode. Some of these trends and symptoms are attributed, in part, to the growing work and time pressures experienced by populations in most industrialised societies, along with sped-up rhythms of daily life, and multiple role conflicts that leave little room for balanced life-styles and close family interaction. These affect adult and adolescent populations alike.

Academic and popular publications report growing levels of *time pressure* and *psychological stress* (Schor, 1991; Burns, 1993; Robinson & Godbey, 1997; Bertman, 1998). 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 et al., 1997). According to the 1992 General Social Survey, 64% of Canada's population felt rushed every day or several times a week. In 1998, this figure had increased to over 66%. These trends affect the adolescent population too. In 1992, 62% of Canadian adolescents aged 15 to 19, attending school and living with parents reported feeling rushed every day or a few times a week. By 1998, this figure had climbed to 68%, that is, a higher proportion than for the adult population. The percentage of adolescents who indicated that they planned to slow down increased between 1992 and 1998 from 11% to 22% (Zuzanek, 2000). Levels of perceived stress are also quite high in most industrialized countries. In Canada, over 49% of adolescents aged 15 to 19 reported experiencing moderate or high levels of stress in 1998, that is, only 5% less than the rest of the population (Zuzanek, 2000). These facts are drawing researchers' attention and call for an explanation.

Much of research on adolescents' well-being has been focused on social-economic and social-psychological determinants of adolescents' physical and mental health, school performance, peer relations and well-being. Behavioural and life-style determinants of adolescents' health and emotional well-being have, on the other hand, attracted less research attention. It is our contention that important determinants of adolescents' emotional well-being, physical health, and mental health are imbedded in adolescent's daily behaviour as reflected in their time use, leisure choices and preferences, and their subjective sense of time pressure and stress.

Methods

Data for the analyses reported in this paper were collected as a part of a larger study, "Relationship between time pressure, psychological stress, lifestyle, and health: The work-family interface", supported by a strategic grant from SSHRC. A total of 2,113 students aged 12 to 19 from a stratified sample of Ontario schools were surveyed in class. These students provided detailed information about their time use, leisure participation and preferences, academic performance, emotional well-being and health.

A sub-sample of 219 students from the "in-school" survey and a corresponding number of parents (one parent from each family) participated in a follow-up experience sampling method (ESM) study. For one week, these respondents were asked to fill in detailed self-reports on their activities and feelings when randomly beeped 8 times per day by a pre-programmed wrist-watch. A total of 9,713 episodes containing detailed information on what the students were doing, who they were with, and how they felt at the time of the beep were reported during this part of the survey.

Activities reported by the students in the in-school and ESM questionnaires were grouped into larger categories, such as school related time, paid work, domestic work, personal needs, and free time. Free time activities were further grouped into categories such as: watching television and videos, playing computer and video games, surfing the Internet, socialising with friends, socialising with family, participation in physically active leisure, reading, and others.

Bivariate correlations, controlling for the day of the week (school day versus weekend) were calculated to establish preliminary relationships between time use, participation in leisure activities, feelings of time pressure, academic performance (self-reported grade averages), emotional well-being and health.

Results

Significant relationships were found in both the in-school and ESM parts of the study between adolescents' time use and participation in leisure activities, and their feelings of time pressure, on the one hand, and their academic performance, emotional well-being, and health on the other. For example, the correlation between academic performance and the amount of weekday time spent doing homework was $r = .20$ according to the in-school survey. Correlations between school performance and socializing with friends was $r = -.22$; watching television and videos, $r = -.13$; and eating at home, $r = .08$. The corresponding correlations for Sunday were $r = .37$, $-.07$, $-.15$, and $.15$ (all significant at $p < .005$ level). Analyses of the ESM data provide interesting information about the emotional and health correlates of such activities as homework, free time, watching television and videos, playing computer and video games, socializing

with friends, and participation in sporting and outdoor activities. Time spent in class, for example, correlates, regrettably, with feelings of not being in control of the situation ($r = -.20$), boredom ($r = .19$), the slow passage of time, ($r = .18$), lack of interest ($r = .15$), and stress ($r = .07$). Free time, on the other hand, correlates with positive affect ($r = .09$), lack of boredom ($r = -.11$), interest in the activity ($r = .26$), but also perceived lack of the activity's importance ($r = -.09$). Watching television and videos, while experienced as interesting ($r = .11$), is perceived as lacking in challenge ($r = -.10$) and unimportant ($r = -.09$).

Discussion

Some of the findings reported above suggest that not all relationships between time use and emotional or health outcomes are sufficiently strong by traditional standards (correlations under .15). It should be noted, however, that unlike correlations between attitudes and self-report survey measures that are usually attributed explanatory value only when above the .15 to .20 level, correlations between behavior (time use) and attitudinal or qualitative measures are notoriously low. It is our contention (accepted in time use research), therefore, that statistically significant and consistent relationships with values around $r = .10$ can and should be used for drawing analytical conclusions.

Actual and Potential Applications

Some of the findings reported above and others that will form part of the intended presentation have clear policy implications. Class time, unlike homework, is perceived by students not only as stressful and boring, but also as unimportant. Homework, while highly demanding, is associated with greater control of time and importance. This paradoxical relationship may deserve some attention from educators. The finding that eating at home (particularly breakfast) has a positive impact on students' school performance not only corroborates findings of other researchers but corresponds with the observations of many educators as well. Excessive amounts of watching television and videos, playing computer and video games, and socializing with friends seem to carry not only negative academic but also, at times, negative emotional effects. All of these issues form part of a larger policy debate.

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