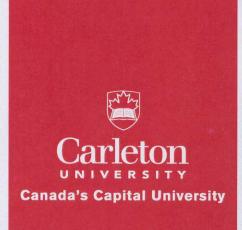
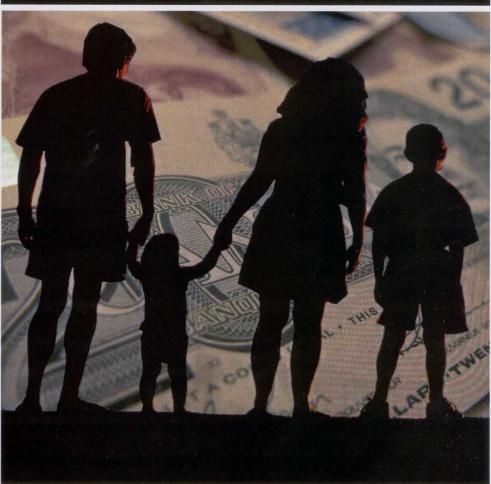
# The Consequences of Financial Stress for Individuals, Families, and Society





Christopher G. Davis, Ph.D., and Janet Mantler, Ph.D. Centre for Research on Stress, Coping, and Well-being Department of Psychology



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March 31, 2004

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For further information, please contact:

Brian P. Doyle, President, B.Sc, MBA CA\*CIRP, CFE or Paul E. Salewski, Senior Vice-President, BA, CA\*CIRP, CFE Doyle Salewski Inc., 396 Bank Street, Ottawa, ON, K2P 1Y5 613-569-4444

#### or the report authors:

Christopher Davis, Ph.D., Associate Professor Janet Mantler, Ph.D., Assistant Professor Centre for Research on Stress, Coping, and Well-being Department of Psychology Carleton University, 1125 Colonel By Drive, Ottawa, ON, K1S 5B6 613-520-2600 X2251; <a href="mailto:cdavis@ccs.carleton.ca">cdavis@ccs.carleton.ca</a> 613-520-2600 X4173; <a href="mailto:jmantler@ccs.carleton.ca">jmantler@ccs.carleton.ca</a>.

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#### **Foreword**

Twenty-seven years ago, I entered into the financial restructuring profession. University educated and trained as a Chartered Accountant with one of the worlds leading professional firms. Back then, I approached each client, whether an individual or corporation, with only cold calculating numbers, assessing their financial circumstances and the legal and financial consequences.

As my career progressed, I became increasingly aware of the more personal circumstances of the individuals I was advising and counselling. I observed that many were under substantial personal stress which filtered throughout the family. From time to time I would learn of an extreme situation wherein an unfortunate debtor resorted to suicide. I also learned of cases where people despaired because they believed there was no hope. These were the most difficult and included many younger adults with onerous student loans.

Since 1977 bankruptcy filings in Canada have swelled. In 2003, over 100,000 individuals have filed for bankruptcy or made a proposal to deal with their financial crisis. As the vast majority of these are acting on their situations as a last and final resort, I extrapolate that there are many more hundreds of thousands of Canadians that bear significant financial pressure and consequently suffer the effects of that stress.

Doyle Salewski has grown to believe that financial stress is an understated factor in our homes and our communities. The media speaks regularly about obesity or environmental pollution and the resulting health and financial effects and burdens upon individuals and communities; but, few pause to consider the depression, anxiety and other emotional burdens that individuals and families are carrying

which cripple their performance and limit their opportunities due to financial

stress.

In an effort to explore this phenomena, Doyle Salewski Inc. has commissioned

the Centre for Stress, Coping, and Well-being of Carleton University to provide

an exploratory report on this subject. Its findings reveal the significant harm done

to individuals and families and the undetermined costs to our communities from

excessive financial stress. However, despite the damage, our researchers

suggest that once the stress is reduced or removed, that long term ill effects may

be negated.

Doyle Salewski is in the business of promoting prudent, personal and corporate

financial management and providing solutions to assist people and corporations

who find themselves in financial difficulty.

My partner, Paul Salewski, and I are pleased and proud to have commissioned

Carleton University and, in particular, Drs. Davis and Mantler in this initial project.

Doyle Salewski will utilize the study to improve upon the quality and style of

services which we are delivering to our clients.

We wish to thank Carleton University and Drs. Davis and Mantler and their

associates for preparing and delivering this report and sharing our substantial

concerns in this relatively unresearched area.

Brian P. Doyle, CA•CIRP

Doyle Salewski Inc.

President

March 31, 2004

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# **Executive Summary**

In this report we summarize what is known about the effects of economic hardship and financial stress based on research in the psychological literature, particularly as it relates to bankruptcy.

More Canadian families may be living near the financial breaking point than at any time since the Great Depression. In 2003, there were more than 84,000 consumer bankruptcies in Canada, and an additional 18,000 consumer proposals filed to help people deal with their financial situation. If it is true that most people who seek bankruptcy protection do so as a last resort, after living in debt crisis for years on end, then these Canadians represent only a small proportion of Canadian families who are living under considerable financial stress.

Given the frequency with which bankruptcy occurs, it is surprising that almost no research has been conducted on the social and psychological effects of bankruptcy. Instead, in order to understand some of the possible consequences of bankruptcy, we draw on research on the effects of financial stress, often as a result of job loss or unemployment.

Financial stress is the subjective, unpleasant feeling that one is unable to meet financial demands, afford the necessities of life, and have sufficient funds to make ends meet (e.g., have to reduce standard of living). It is the perception of the financial situation that is implicated in the negative outcomes we describe in this report.

The most consistent finding of the research is that financial stress is associated with lowered self-esteem, an increasingly pessimistic outlook on life, and reduced mental health, particularly an increase in depression and hostility. There is also a link between financial stress and suicide and alcohol consumption, likely as a result of the increased level of depression. Financial stress is also associated with declining physical health such as an increase in headaches, stomachaches,

and insomnia. Again, it is likely that people with a great deal of financial stress experience high levels of depression and it is depression that is most directly associated with worsening physical health.

As financial stress increases, so does the likelihood of marital discord and breakup. As the financial pressure mounts, couples may become preoccupied with financial issues, leading to anger, frustration, blame, and increasing arguments - particularly over money. As individuals become more depressed, they withdraw more from their spouse and offer less emotional support (e.g., expressing care and concern). As the cycle progresses, marital partners tend to engage in undermining behaviour such as criticizing and insulting the other, further reducing the satisfaction with the relationship. These effects tend to be strongest for people with unstable relationships prior to the experience of financial stress. Some research suggests that couples who have strong relationships prior to the financial stress are less likely to experience a breakup as a result.

Parents (especially fathers) who are experiencing financial stress are less responsive to their children's needs, less nurturing, less consistent in their parenting, and more inconsistent in the discipline of their children. There is also an increased potential for child abuse if financial stress is combined with parenting stress and aggression between marital partners. Such parental behaviours may increase the children's risk of socioemotional problems (e.g., low self-esteem, depression, impulsive behaviour), health problems, poor academic performance, deviant behaviour, drug and alcohol use, withdrawal from social relationships, and reduced aspirations and expectations. Children may become depressed, adopt the pessimistic outlook of the parents who are undergoing financial strain, and lose their sense of personal mastery. This can result in children and adolescents setting lower expectations for their own careers. Financial pressure is also related to increased conflict between parents and

adolescents, particularly over the purchase of clothes, games, and lifestyle options.

It is important to note that many of these effects on children are indirect. Children appear to exhibit these problems to the extent that their parents are depressed and become less nurturing in their parenting. This means that children will not be at risk for these negative outcomes if parents are able to maintain positive, nurturing parenting skills despite financial stress.

It is difficult to estimate the costs of financial stress, and bankruptcy in particular, for the community and society in general. Bankrupt individuals in Canada were absolved of debts of \$2.7 billion last year (Office of Superintendent of Bankruptcy, 2004), but this does not take into account the economic cost of depression, family strife, or behaviour problems in children. It is important that future research consider the indirect costs of adults experiencing such stress, and future costs as children exposed to financial stress are affected in years to come.

Many people believe that economic hardship is a private issue and they withdraw from their social networks and volunteer activities, delaying the opportunity to seek assistance and support, but this is not an effective strategy. Leisure activities, like volunteer work and sports, are inexpensive ways to add interest and meaning to life and they provide the possibility of gaining much needed social support.

Other key buffers from the negative effects of financial stress appear to be having a strong sense of personal mastery (i.e., a belief that one can manage stressful situations) and a strong and supportive spousal relationship, through which a couple feels capable of problem solving together. This suggests that developing problem solving and financial management skills (to increase one's sense of mastery) will help to mitigate the stress, increase one's self-esteem,

strengthen the marital relationship, and buffer children from the negative outcomes of parents experiencing financial stress. People may require assistance in learning how to develop these skills.

Many of the studies indicated that the effects of financial stress are largely indirect and attributable to depression. If depression is the lynchpin, then this suggests that preventing or limiting the depression will reduce or eliminate the effects of the stress on families. There is some suggestive evidence that as the financial pressure is lifted (perhaps, in the case of bankruptcy, through bankruptcy protection), some of the negative effects of stress disappear, although more research on this issue is necessary.

Dealing with economic hardship and financial stress effectively may open a door to outcomes that are positive. Economic hardship may result in positive changes such as finding a new job or improving one's ability to manage personal finances.

### I. Introduction

Stress is all around us. We experience stress at work, in traffic on the way home from work, with our children and our partners, and at night when we try to sleep. We worry about our health, our children, paying the bills, disappointing a loved one, and whether we still have what it takes to get promoted or, sometimes, merely to keep our job. Although most people think of stress as something undesirable, this is not necessarily the case. We need at least a minimum amount of stress in our lives to motivate us to action. Stress often leads to good outcomes: we feel good about ourselves when we overcome obstacles, succeed when the odds were against us, and solve problems that are nagging at us. Stressful experiences can lead people to develop new skills, new insights, and new ways of living their lives (Tedeschi & Calhoun, 2004).

A key stressor for many people is economic hardship. People with economic hardship often worry about being unable to make ends meet, repossession and foreclosure, and the shame of being unable to support their family. No doubt, such stress is debilitating, and in this report we summarize the research evidence for the effects of economic hardship and financial stress. It is important to note, however, that economic hardship and financial stress may also open a door to outcomes that are positive. Economic hardship may result in positive changes such as finding a new job or improving one's ability to manage personal finances.

Our goal in this report is to review what is known in the psychological literature about the effects of financial stress. We begin with a definition of stress, and an introduction to a theoretical model of stress. It is in this context that we then review what researchers have uncovered about the effect that financial stress has on individuals, their families, and society at large.

#### What is Stress?

Stress is a particular unpleasant feeling that one experiences when one perceives that something one values has been lost or is threatened. This loss or threat could be something material (e.g., loss of one's house), social (e.g., a relationship breakup), symbolic (e.g., threat to one's status as provider), or economic (e.g., job insecurity). We feel stress when we believe that we do not have what it takes (in terms of coping skills or resources) to face the perceived threat or loss.

In addition to the unpleasant feeling, stress also includes a host of biochemical, physiological, cognitive, and behavioural changes. Biochemical changes include the secretion of catecholamines, epinephrine, norepinephine, glucocorticoids, and cortisol. Physiological changes include increased blood pressure, heart rate, and sweating. When stress is short term, these biochemical and physiological responses are adaptive. However, when stress is chronic, these prolonged responses can put one at increased risk for health problems including cardiovascular disease, arthritis, hypertension, and reduced ability to fend off viruses due to compromised immune functioning (Sapolsky, 1998). They can also maintain (if not cause) major psychological disturbances including depression and anxiety.

Our focus here will be on emotional, cognitive, and behavioural changes that accompany stress because that has been the focus of the literature on financial stress, but it should be noted that given what is known about the stress in general, and chronic stress in particular, it is likely that financial stress also has some of the physiological and neurochemical consequences noted above. To our knowledge, however, direct evidence of such effects is not yet available.

Things that produce stress are termed *stressors*. A stressor could be something that comes from the outside world (such as an economic downturn, a layoff notice), or it could be something that is internal and not observable to the outside

world (e.g., a fear of failing). Stressors may be acute or chronic; they may be predictable or unpredictable; and they may be controllable or uncontrollable. In general, stressors that are perceived to be chronic, unpredictable, and uncontrollable are more debilitating than are those that are perceived to be acute, predictable, and controllable. Financial stress tends to be chronic, and often perceived as uncontrollable. Often, the instigating event (e.g., job loss, investment losses) is likewise unpredictable and unavoidable.<sup>1</sup>

It is important to note that what is stressful to one person may not be stressful to another. What makes an event or situation stressful depends on the person's interpretation. Two people with the same income and expenses will probably react very differently to the same debt problem. One may perceive the debt problem as a challenge and will mobilize her resources to deal with it (e.g., make a plan to revise spending habits, seek other sources of income) whereas the other may interpret the same situation as beyond her ability to manage. Given the huge variation in how people interpret and respond to stress, it is impossible to say with certainty what any one person will do when faced with a potential stressor. We can say, however, what people tend to do when faced with that stressor. The research described below is based on samples of people facing varying degrees of financial stress. By looking for general patterns, we are able to draw conclusions about common or typical reactions. In many cases, the research indicates that people facing financial stress are at increased risk for particular outcomes (e.g., behaviour problems in children). This does not mean that if you are experiencing a great deal of financial stress that your children will exhibit behaviour problems, or even that they probably will exhibit behaviour problems; only that they are more likely than those who are not facing financial stress to exhibit behaviour problems.

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<sup>&</sup>lt;sup>1</sup> Despite the objective facts of a case which might indicate otherwise, many people who are emotionally distressed will selectively interpret an unavoidable or unpredictable negative event as avoidable and predictable, and will struggle with the idea that had they only done X or Y, it might not have happened (see e.g., Davis et al., 1995, 1996).

#### What is Financial Stress?

We define *financial stress* as the unpleasant feeling that one is unable to meet financial demands, afford the necessities of life, and have sufficient funds to make ends meet. The feeling normally includes the emotions of dread, anxiety, and fear, but may also include anger and frustration.

Whereas financial stress is a subjective feeling, which may or may not be based on an objective assessment of one's financial situation, we refer to the objective circumstances that typically give rise to the feeling of financial stress as economic hardship. Economic hardship may be due to such things as the loss of a job, unexpected medical or legal expenses, chronic overspending, investment losses, or gambling. The economic hardship may be acute or chronic, anticipated or unanticipated, and it may be attributable to uncontrollable forces (such as the regional economy) or controllable forces (e.g., poor financial management).

Economic hardship is often defined in terms of family income below the poverty line (often taking into account family size), a decrease in family income of greater than 35% from one year to the next, a high debt-to-asset ratio, or loss of job by principal breadwinner. We note that none of these measures may be completely satisfactory to an accountant or auditor, but we believe that they do capture economic hardship in a general way. A precise analysis of one's financial situation is of less interest to psychologists than is one's *perception* of the financial situation because it is this perception that produces the financial stress, which in turn is implicated in a host of individual, familial, and social consequences. If one fails to realize the dire predicament of one's financial situation, then one will not feel financial stress.

Most research on the effects of financial stress draws from samples facing a particular type of economic hardship. For instance, some studies have been published on the effect that the Great Depression had on families, others have described the effect of mass job losses in company towns, and others have

described the effects of chronic poverty. One series of studies is based on interviews conducted with people in rural lowa (including farmers and other community members) during the agricultural crisis in the late 1980s as interest rates climbed and the value of their land plummeted by roughly 50%.

In contrast to their measure of economic hardship, financial pressure or financial strain is frequently measured in terms of the degree to which research participants report that they have had to postpone the purchase of household necessities (e.g., health insurance, replace broken furniture or equipment), have had to reduce their standard of living, borrow to pay monthly bills, and/or are unable to pay their monthly bills. It is this measure of financial pressure that is considered to be the main stressor with which people are coping. As Herzberg (1990) stated, "... economic stresses are perceived as quickly and intensely as having to pay the next bill." In fact, among research studies assessing both economic hardship and financial pressure, it is the financial pressure measure that is most strongly linked to outcomes such as depression, marital problems, and the like. Interestingly, the link between economic hardship and financial pressure is not particularly strong: some people without economic hardship (as defined by income or debt) do feel financial pressure (e.g., lack of cash flow), and some with economic hardship do not feel much financial pressure (e.g., students used to living on very little).

Even though our focus is on the effects of financial stress, it is important to note that it is not possible to disentangle the effects of financial stress from other stresses that accompany financial stress. For instance, research conducted in the early 1930s in the United States and in Europe indicates that loss of one's job – even when it is due to international economics – precipitates a host of other stressors. A study by Jahoda and colleagues (1933) of unemployment in a one-company town in Austria documented that the unemployed decreased their participation in clubs and volunteer activities (including use of the free library), abandoned efforts to budget, increasingly quarreled with family members, and

lost self-esteem. In fact, many came to blame themselves for their situation. This study and others suggest that those who lose their jobs not only lose income, they also lose an integral source of life purpose, a central activity that structured their day, and a network of coworkers who shared in a common goal. It is unclear the extent to which these changes witnessed by Jahoda and her colleagues could be attributable to the loss of income as opposed to the stress of losing status as family provider, losing one's occupational identity, losing a sense of purpose, or shame.

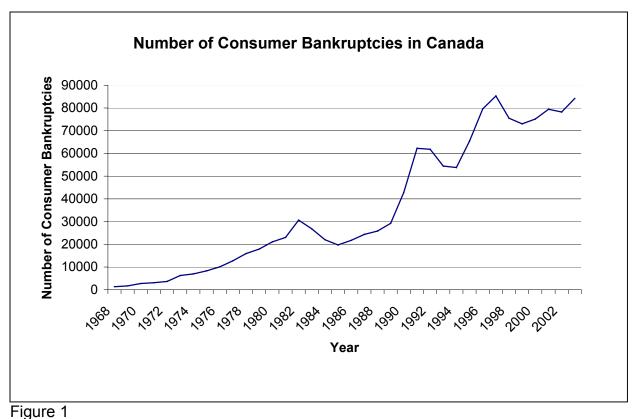
#### A Word about Bankruptcy

According to the Office of the Superintendent of Bankruptcy, there were more than 78,000 consumer bankruptcies in Canada in 2002 (or 2.5 per 1,000 people), and more than 84,000 consumer bankruptcies in Canada in 2003 (or 2.7 per 1,000 people). Over the past decade, the average number of consumer bankruptcies has been roughly 75,000 per year. The trend over the past 35 years has been a steady upward climb (see Figure 1). In addition to these consumer bankruptcies, more than 18,000 people filed consumer proposals in 2003, an increase of 7.2% from the year before, and an increase of 106% of the number of proposals filed in 1998. A consumer proposal is an agreement with creditors to accept less money than is owed to them paid back over a specified period of time, as arranged by a Trustee in Bankruptcy, in order to avoid bankruptcy.

Given the frequency with which bankruptcy occurs, it is surprising that almost no research has been conducted on the social and psychological effects of bankruptcy. We suspect that the paucity of research on bankruptcy might be owing to the difficulty in recruiting people who have gone through the process to participate in research. Although thousands of individuals declare bankruptcy every year, not many are keen to talk about it.

Instead, we have to draw on research on the effects of economic or financial strain or stress, often as a result of job loss or unemployment. If one were to

assume that those who complete the process of filing for bankruptcy do so because they perceive that they are at the high end of the financial stress continuum, then one might reasonably conclude that at such a high point on the financial stress continuum, the effects we refer to below are probably more common or more severe than we report here. That is, one might assume that the more extreme one's financial stress, the higher and more severe are the rates of

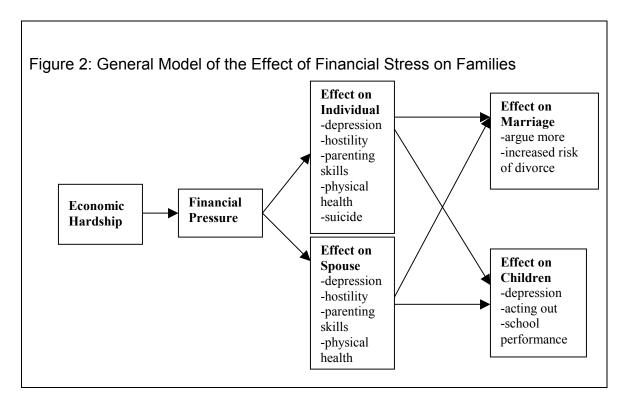


Source: Annual Statistical Summary of the Office of the Superintendent of Bankruptcy

depression, alcohol and drug abuse, and relationship problems. There is some mention in the unemployment literature that those who find new jobs recover from many of the ill effects of financial stress (Kessler, Turner, & House, 1989), suggesting perhaps that removal of the financial strain (in the case of bankruptcy, through bankruptcy protection) may have a similar ameliorative effect, but the empirical research has yet to be conducted.

#### Overview of Literature Review

Our review of the literature on the effects of financial stress follows a model described by Conger and colleagues (1993a). Conger et al. propose a family systems model that suggests that financial stress has direct effects on the primary income earner, and then indirectly has an impact on the marital relationship, which in turn has an effect on children. A simplified version of this model is given schematically in Figure 2.



The outcomes of financial stress noted in Figure 2 effectively compound the original stress. For example, health problems and marital problems become new stressors that further tax one's ability to cope with financial stress. A stressed parent's response to his or her child's poor academic performance may increase the conflict between child and parent. In this sense, the model is iterative and cyclical.

In our review, we will first describe the effect that financial stress (or more specifically, financial pressure or financial strain) has on men and women in

terms of mental and physical health. We will then describe the effect that financial stress has on the marital relationship, and then the effects that financial stress has on adolescents and young children. Taking these direct effects into account, we will then consider the effect of financial stress on society.

#### II. The Effect of Financial Stress on Men and Women.

One of the most consistent findings in the literature is that financial stress is associated with a higher incidence of mental and physical health problems. This point comes first from observational studies conducted in the 1930s (Jahoda, 1979), second from analysis of annual population data (e.g., Brenner, 1973), and third from surveys of individuals going through financial stress (e.g., Price, Choi, & Vinokur, 2002). Brenner (1973), for instance, analyzed data collected annually by the State of New York between 1914 and 1967 and found a strong and consistent correlation between economic indicators (e.g., manufacturing employment index) and admissions (voluntary and involuntary) to state psychiatric institutions, particularly for men. As the economy worsened, admissions increased. Brenner also reported that as the economy soured, incidence of suicide and alcoholism also increased significantly. In an updated and expanded report to the US Congress Joint Economic Committee, Brenner (1984, as cited in Herzberg, 1990) projected that a 10% decline in per capita income would result in a 1% increase in total mortality, a 1.5% increase in cardiovascular-related mortality, a 3.7% increase in suicides, and a 2.6% increase in imprisonments. Based on US government data, Brenner demonstrated that as the rate of unemployment increases, cigarette consumption increases, as does the proportion of people living alone. As the rate of business failures increase, so too does alcohol consumption.

Studies with Iowa farmers during the farm crisis of the 1980s found that suicide was a real threat as farmers were about to lose their farms (Turkington, 1985). By contrast, research with Canadian farmers (Pickett, Davidson, et al., 1993)

found no direct association between a reduction in financial status and increased suicide rates. Hence, the connection between economic hardship and suicide is relatively complicated (Wasserman, 1992). One's social network and one's interpretation of the financial situation and the resulting emotional reactions likely play important roles in preventing suicide.

Findings that financial strain is associated with poorer physical health and with mortality have been reported in the United Kingdom. Moser and colleagues (1984, 1990, as cited in Bartley, 1994) followed up on men who were unemployed and seeking jobs in 1971. Ten years later, these men were 20% more likely to be deceased as compared to employed men of the same age. American studies also suggest that financial stress is linked with worse physical health. For instance, Fox and Chancey (1998) analyzed the responses of 366 randomly selected adults from urban southeastern US and found that financial stress was correlated negatively with perception of one's health, self-esteem, marriage satisfaction, and family functioning. They also found that as financial stress increased, couples were more likely to fight, and were more likely to break up. In their research, they assessed financial stress with measures of employment instability, employment insecurity, low total yearly family income, and difficulty living on the current family income.

Rantakeisu, Starrin, and Hagquist (1999), in their survey of 502 unemployed young people (16 – 25 years) in Sweden, found that people who had a greater degree of financial hardship were more likely to report headaches, stomach aches, or insomnia daily or at least a few times a week. Moreover, the people who were under greater financial strain reported that their health was deteriorating at a faster rate than was the health of unemployed young people under less financial strain. People in this study who experienced greater financial stress tended to report lower levels of physical health.

Price, Choi, and Vinokur (2002), in a two-year longitudinal study<sup>2</sup> of 756 American unemployed job seekers also found that financial strain resulted in a decrease in ratings of physical health. Importantly, Price et al. (2002) found that the effect of financial strain on health is mediated by one's sense of personal control and depression. That is, financial strain increased one's risk for depression and a sense of losing control, which in turn appeared to influence the deterioration of physical health. The longitudinal nature of this study allowed the researchers to show that it is not simply the case that people who are more depressed or ill are more likely to lose their job and suffer financial strain, but that financial strain actually *increases* depression and *decreases* health. Lange and Byrd (1998) found similar results in their survey of New Zealand university students. They reported that the effect of financial distress on physical health was attributable to the effect of financial distress on mental health. Financial distress makes people feel depressed and anxious, which in turn results in a perceived deterioration in physical health.

Innumerable studies show that financial stress increases levels of both depression and anxiety, and decreases quality of life in men and women. In their study of more than 400 husbands and wives in rural lowa conducted during the agricultural crisis of the late 1980s, Lorenz, Conger, and Montague (1994) reported that financial pressure was strongly correlated with symptoms of depression for both husbands and wives. In another report, Conger and colleagues (1993b) show that of 35 different stressors (e.g., illness, injury, legal issues, troubles with children), financial stress was most strongly linked with depression, anxiety, and hostility in their sample of husbands. Among wives, financial stress was also significantly linked with depression, anxiety and physical

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<sup>&</sup>lt;sup>2</sup> A longitudinal study is one in which the same research participants are followed over the course of time. This allows researchers to better test the notion that one factor (say economic pressure) causes changes in something else (e.g., symptoms of depression). If both economic pressure and depression are assessed only at one single point in time, then it is impossible to know whether economic pressure is causing depression, whether depression is causing economic pressure, or whether something else is causing both.

health complaints, although family stressors were the most strongly associated with these outcomes. These family stressors very likely included dealing with a depressed and hostile husband and distressed children.

Based on their study of a representative sample of 810 adults from Utah, Pittman and Lloyd (1988) reported that a greater degree of financial stress predicted not only lower ratings of life satisfaction, but it also predicted lower ratings of satisfaction with one's marriage and lower ratings of satisfaction with one's role as parent. Galambos and Silbereisen (1987), in a longitudinal of 112 two-parent families in Berlin, found that income loss was related to more pessimistic life outlooks for both men and women, which in turn affected the outlook of their children.

In another longitudinal study, Pearlin, Menaghan, Lieberman, and Mullan (1981) demonstrated that increases in financial strain from the first interview with participants to a second interview 4 years later predicted changes in depression, self-esteem, and sense of personal control that participants felt they had over their lives. Specifically, as financial strain increased, depression increased and self-esteem and sense of control over one's life decreased. Similarly, Stokes and Cochrane (1984) showed that people who were unemployed experienced more depression, hostility, and less self-esteem relative to those who were employed. In this study, unemployed participants and a group of people who had similar demographic characteristics (e.g., same age, same gender) but who remained employed were interviewed within the first month of their unemployment and then after six months. The results indicated that at both times, the unemployed were worse off on the measures noted above.

Chronic financial strain has also been associated with increased alcohol consumption. Peirce, Frone, Russell, and Cooper (1994) interviewed a random sample of 1,424 men and women who lived in New York State and found, consistent with the other studies noted here, that chronic financial strain was

strongly associated with increased levels of depression. They also found that people who were more depressed were likely to drink more alcohol to cope with their situation. There was a direct association between chronic financial strain and increasing drinking as a coping strategy. Hence, people who are under financial stress may drink more alcohol both because they are depressed and because they believed that drinking provided some direct relief from the stress.

It is very clear that being financially stressed puts one at increased risk of becoming depressed, or at least increasing the number of depressive symptoms one exhibits. Depression is not simply sadness or laziness. Depression is a serious mental disorder that not only robs people of their joy of life, but it also has significant motivational, cognitive, and behavioural consequences. People who are depressed become hopelessly mired in a worldview where it seems that nothing they can do will change anything; where getting out of bed in the morning is the most difficult thing to do; and where one expects the worst and is not surprised when bad things keep happening. Research indicates that people who are depressed are motivationally crippled (i.e., they have no energy to try), and they see the world through a pessimistic lens. There are also clear physiological and neurochemical changes in depressed persons. Classic symptoms of depression include difficulties falling and staying asleep, loss of pleasure and interest in things (e.g., sex), increased irritability, and chronic feelings of tiredness or fatigue. It is important to recognize and deal with the symptoms of depression. Given the impact that depression has on an individual, it is not surprising that once a person is depressed, its effects permeate through his or her interactions with others, and any other activities the individual is trying to carry out (e.g., work, parenting). All of these effects serve to perpetuate the depression. Even family members tend to avoid interactions with the depressed person (Coyne et al., 1987; Nolen-Hoeksema & Davis, 1999).

#### Financial Stress and the Marriage Relationship

In addition to the effects that financial stress have on mental and physical health. financial stress also has an adverse effect on marital relationships. Several studies indicate that as financial stress increases, couples argue more particularly over money. Such effects were alluded to earlier in Pittman and Lloyd's study (1988), which found that greater financial stress was associated with lower satisfaction with marriage. Conger, Reuter, and Conger (2000), in their study of rural lowans, found that greater financial pressure was associated with lower marital satisfaction and greater marital instability. They suggest that as financial pressures increase, couples become preoccupied with financial issues, and their perceived lack of control over the situation often leads to frustration, anger, and general demoralization. As individuals become more depressed, they withdraw more from their spouse, offering less emotional support and spend more time arguing and blaming each other. Similarly, for urban American couples, Fox and Chancey (1998) found that financial pressure and partners' level of job insecurity were related to decreased self-esteem and satisfaction with the marriage and to increased marital trouble and family conflict. In the Fox and Chancey study, family conflict was assessed in terms of participant reports of physical and verbal aggression between partners, and between parents and children. As financial stress increased, couples were more likely to fight and more likely to break up.

Overall, couples experiencing greater levels of financial pressure report lower levels of support for each other. Lorenz, Conger, and Montague (1994) found that financial pressure was modestly associated with decreased levels of social support within the family. Simons et al. (1993) measured social support through self and observer report and found that people under greater financial pressure tended to offer less emotional support to their spouse. Moreover, Conger, Ge, and Lorenz (1994) and Conger et al. (2000) found that financial pressure was associated with increased depressed mood for both partners, which in turn exacerbated an irritable and hostile style of interactions between the partners. It

was the depression and hostility that were associated with lower marital satisfaction and greater marital instability.

Similarly, Vinokur, Price, and Caplan (1996) examined the role of support versus undermining behaviours for marital partners experiencing financial stress. They surveyed 815 urban job seekers and their partners twice (6 months apart) and found, consistent with the other research noted here, that the greater the level of financial stress, the more depressive symptoms reported by both partners. They also found that if the partner of the person looking for work was depressed, that person had less ability to provide social support (e.g., express care and concern, provide help) to the job seeker. The partner was also more likely to engage in undermining behaviours such as criticizing and insulting the job seeker. The increase in undermining behaviours and the decrease in support led to reduced satisfaction with the relationship. These effects were consistent for both men and women.

In their analysis of data from a longitudinal study of adjustment during the Great Depression, Liker and Elder (1983) found that these effects are not new. They showed that income loss between the years of 1929 through the mid-1930s led to more family discord, as men who lost income became more tense, irritable, and explosive. This study, begun before the economic Depression hit, is in a unique position to illustrate whether certain personal characteristics put people at increased risk for negative outcomes. The researchers found that although most people who suffered significant income loss during the Depression experienced marital discord, the effects were strongest for couples with unstable marriages in 1929-1930. Those couples who were judged to be "happy, frank, affectionate, and in agreement on most things" in 1929-1930 were least likely to experience marriage discord and marriage collapse in later years.

#### Financial Stress and Parenting

Financial stress also has a negative impact on how parents parent. Several studies now show that parents (especially fathers) who are experiencing financial stress are less responsive to their children's needs, are less consistent in their parenting, and are more inconsistent in their discipline of children.

A review by McLoyd (1989) concluded that "fathers who respond to economic loss with increased irritability and pessimism are less nurturant and more punitive and arbitrary in their interactions with the child. These fathering behaviors increase the child's risk of socioemotional problems, deviant behaviour, and reduced aspirations and expectations." McLloyd's review indicates that fathers under financial stress due to unemployment may spend more time with their children than employed fathers, but this extra time spent with children is often not quality time.

Elder, Nguyen, and Caspi (1985) analyzed archival data from the Oakland Growth Study from the Great Depression era (note that this is a different study than the Great Depression study cited earlier by Liker & Elder). Researchers interviewed 167 children and their mothers in 1931 and again in 1935. The mothers' parenting behaviour did not change much regardless of economic hardship. The father's behaviour, however, did change with income loss. As economic hardship increased, fathers became more rejecting, more indifferent, and less supporting of their children.

Conger, Ge, Elder, Lorenz, and Simons (1994) in a 3-year longitudinal study of 7<sup>th</sup> grade adolescents and their parents found that financial pressure was related to conflict between parents and children, particularly over money issues. The adolescents want the clothes, games, and entertainment and lifestyle options of their peers, which the parents are unable to afford. As we will see in the next section on the effects of financial stress on children, this conflict between parents and adolescents plays itself out in the adolescents' behaviour outside the home.

In a subsequent report based on these same data, Conger and colleagues (1999) reported that adolescents' developing perception of the family's financial pressure negatively influenced their feelings of distress and sense of personal mastery. That is, as financial pressure mounted, children became more depressed and anxious, and began to feel less control over their lives.

Lempers, Clark-Lempers, and Simons (1989), in a survey of 622 adolescents from grade 9 to 12 who lived in the American Midwest, found a strong association between perceived economic hardship in the family and less parental nurturance. Moreover, they found that with greater perceived economic hardship there was less consistent discipline. In general, to the extent that adolescent children saw that their parents were experiencing economic hardship, they also reported that their parents were less nurturing and less supportive, and more inconsistent and rejection-oriented in their discipline.

A study by Mistry et al. (2002) of an ethnically diverse, low-income sample of 419 elementary school-aged children and their parents found that increased distress in financially stressed parents was associated with problems with parenting, including being less responsive to the needs of their children, being less affectionate with their children, and being inconsistent and more punitive in their discipline. These parenting responses in turn were associated with behavioural problems in the children. That is, children of less responsive and more inconsistent parents were rated by teachers to be more aggressive, hyperactive, and required discipline at school more frequently.

Margolin and Gordis (2003), in a survey of 177 families with young children, found that fathers under greater financial strain had higher potential for abusing their children as compared to fathers who were not under financial strain. If there

was both financial stress and parenting stress, and if there was parent-to-parent aggression, there was stronger potential for child abuse.<sup>3</sup>

#### III. Effects on Children

Children of financially stressed parents tend to be more prone to mental health problems, depression, loneliness, and are more emotionally sensitive (Elder et al., 1985; Lempers et al., 1989; Werner & Smith, 1982). They are less sociable and more distrustful, and are more likely to feel excluded by their peers, especially if they are girls (Buss & Redburn, 1983; Conger et al., 1993a; Elder, 1974). Boys of financially stressed parents are likely to exhibit low self-esteem, to show behaviour problems in school, and be susceptible to negative peer pressure (Elder et al., 1985) and alcohol and drug problems (Conger, Reuter, & Conger, 2000). Financial stress is related to poorer academic performance in both boys and girls (Clark-Lempers, Lempers, & Netusil, 1990; Conger et al., 1992, 1993a; Mistry et al, 2002). Takeuchi, Williams, and Adair (1991) conducted interviews with a representative US sample of 1,377 children aged 7-11 years and their parents. They found that financial stress was associated with more symptoms of depression, antisocial behaviour, and impulsive behaviour in children.

Conger et al. (1999) reported that adolescents who believed their families were having financial hardships also reported a lower sense of mastery, particularly for boys. A lower sense of mastery was associated with greater levels of anxiety and depression. In a different sample of children and their parents, Conger et al. (2002) also showed that family financial stress predicted attention deficit and conduct problems in children. Further analysis, however, indicated that these

<sup>&</sup>lt;sup>3</sup> Note that in the Margolin and Gordis study, potential for child abuse was measured instead of actual child abuse. This was done for ethical and legal reasons. The validity of this measure of potential for child abuse has been demonstrated in other studies of known child abusers. That is, people known to be child abusers tend to score high on this scale. We nevertheless recommend caution in interpreting these results.

problems could be traced back to the parents. That is, financial stress led parents to become depressed, which in turn was linked to changes in how they parented, and it was this change in parenting style that predicted behavioural problems in their children.

As noted in the previous section, Mistry et al.'s (2002) study of elementary school children from low-income families also showed indirect effects of parent's financial stress on children's behaviour. That is, Mistry et al. showed that parents with greater financial stress were more likely to be distressed (i.e., depressed, exhibit chronic worry), and that this greater distress led to less parental responsiveness and more inconsistent discipline, which in turn was associated with teacher ratings of greater hyperactivity, more aggression, and more frequent disciplinary actions for kids of distressed parents.

A Swedish study by Hagquist (1998) of over 2,400 adolescents in ninth grade found that adolescents who worried more about their family's finances perceived their own health as worse than those who did not worry about finances. In fact, the effect of financial stress on health was stronger than was the effect of any other stressor in this study (e.g., worry about illness or injury, accident, parental unemployment).

A study by Flanagan and Eccles (1993) of almost 900 US children going through the transition from elementary school to junior high indicated that children of families simultaneously experiencing a decline in work status (e.g., becoming laid off, being demoted) increased their level of disruptive behaviour in school (e.g., more incidences where they punched another child, wrote on school property, disrupted class, or refused to work, as rated by the children themselves) from elementary to junior high, and became less socially competent (e.g., the student's ability to get along with others, ability to handle stress and frustration, as rated by teachers). Such differences were not observed for children of families with improved work status (changing from unemployment or underemployment to

fulltime employment) or stable work status over the period of the child's transition from elementary school to junior high. Although it is more common for boys to exhibit disruptive behaviour, the researchers found that the effects of parents' financial stress affected girls as much as it affected boys. What is impressive about this study is that the researchers obtained information from children, their parents, and teachers both before and after the transition, which allowed the analysis of change from multiple perspectives (child, parent, teacher).

Other studies indicate that children take on the pessimistic outlook of their stressed parents. The Galambos and Silbereisen (1987) study noted earlier is a case in point. They showed that adolescent children (especially girls) of financially stressed parents set lower expectations for their own careers than their less stressed peers. As parents became pessimistic about their economic outlook, their children came to expect that they will not be able to find a good job in the future. As one adolescent put it after both his mother and father lost their jobs,

The future stinks. You're supposed to spend your childhood preparing for the real life of being an adult. But what if that real life is no good? What's the sense? Look at my parents. They always did everything the way you're supposed to. Now look at them – nobody will give them a job.... What's the sense of trying in school. There's no jobs for my dad or my mom. Why should I believe there will be jobs for me when I get out [of school]? (as quoted in McLloyd, 1989, p. 299).

To summarize, the effect of parents' financial stress on children is quite consistent. Study after study indicates that financial pressure – whether due to poverty, unemployment, or economic downturn – has negative "trickle down" effects on children (Siegal, 1984). Although some studies show these effects are stronger for boys than for girls, whereas other studies show the reverse, these differences may have more to do with what outcome was measured (e.g., depression is more common in girls; disruptive behaviour is more common in boys) than they do with differential impact of financial stress on boys and girls. In general, children of financially stressed parents tend to be more depressed, more

anxious, exhibit behaviour problems in school, perform less well academically, and lower their career expectations.

It is important to note that many of these effects on children are indirect. That is, children appear to exhibit these problems to the extent that their parents are depressed and become less nurturant and understanding in their parenting (e.g., Conger et al. 1992, 1993a, 1999, 2002; Lempers et al., 1989). This means that children will not be at risk for these negative outcomes to the extent that parents who are able to maintain positive, nurturant parenting skills despite financial stress. Unfortunately, financial pressure makes it much more difficult to maintain effective, nurturing relationships with one's children, particularly for men. It is also vitally important that spouses continue to support each other emotionally during times of financial stress, and not fall into a conflictual and accusatory style of communicating. Lastly, it is important that symptoms of depression be recognized and treated effectively. Classic symptoms of depression include difficulties falling and staying asleep, loss of pleasure and interest in things (e.g., hobbies, food, sex), increased irritability, and chronic feelings of tiredness or fatigue.

On the more positive side, there is some suggestive evidence that as the financial pressure is lifted, some of the negative effects of stress disappear. In a sample of residents in southeastern Michigan interviewed during the economically lean years of the mid 1980s, Kessler, Turner, and House (1989) found that as unemployed workers returned to work, their symptoms of depression abated. It must be noted that those who returned to work in this study were unemployed for less than 12 months, and so it is not clear whether the same result would hold for people facing chronic financial pressure.

If it is the case, however, that the return to work eases the negative effects of financial stress including depression, then it is important to consider how personal resources can help people in their job search. In a study of 201

unemployed people and 128 employed people in Australia, Waters and Moore (2002) also found that, regardless of level of actual financial hardship, regaining employment eases the feeling of financial distress. Those who found work faster were people who had a stronger sense of personal control over their situation and who engaged in interesting and meaningful leisure activities while they were unemployed. Such leisure activities could include things like volunteer work and sports, which are not necessarily costly but add meaning to one's life.

## IV. Cost to Society

It is difficult to estimate the costs of financial stress, and bankruptcy in particular, for the community and society in general. The direct cost of bankruptcies in Canada last year was \$2.7 billion (Office of Superintendent of Bankruptcy, 2003). But this cost does not take into account the economic cost of a depressed employee, a family in strife, or children acting out at home and at school. Martin Shain and his colleagues (2002) in their review of the costs of mental health and substance abuse problems at work, however, provided a conservative estimate that anxiety, depression, and substance abuse costs Canadian businesses more than \$11 billion per year in direct losses in productivity and an additional \$22 billion per year in indirect costs, based on 1993 data provided by Moore, Moa, Zhang, and Clarke (1997). They note that these estimates do not include costs related to health care or social services. Shain et al. (2002) report that up to 10% of people in the workforce will manifest serious and acute problems with depression, anxiety, and/or substance abuse and a further 15% likely manifest subclinical levels of these mental health problems. Although workplace stress may be the cause of a considerable proportion of these problems, it is also likely that for many people reporting anxiety, depression, and substance abuse, these problems are related to their home life and include dealing with financial stress. As has been clearly identified in the present review, financial stress is consistently linked with increased risk for depression, substance abuse, and family conflict. It is likely that these effects result in lost work time for people who are employed and less time spent looking for work for people who would like to find jobs.

One must also consider the cost of financial stress on children. What is the cost to society of a child who regularly disrupts class, refuses to work at school, or turns to drugs and alcohol for escape? It is beyond our ability to estimate the cost of depression and antisocial behaviour in children. If left untreated, however, the cost to society of children with emotional and behavioural problems will be borne not merely by the current society, but also by the society of the next generation.

# V. Summary and Conclusions

With the number of personal bankruptcies in Canada soaring, one might assume that more Canadian families are living near the financial breaking point than at any time since the Great Depression. If it is true that most people who seek bankruptcy protection do so as a last resort, after living in debt crisis for months on end, then the roughly 100,000 Canadians declaring bankruptcy or filing proposals each year represent only a small proportion of Canadian families who are living under considerable financial strain or stress.

Our review of the psychological literature on the effects of financial stress indicates that such effects are broad and pervasive. Central to these effects, however, is the fact that financial stress makes people vulnerable to the serious psychological illness of depression. As we stated earlier, depression is not simply feeling "down in the dumps." It is an illness that carries considerable emotional, motivational, cognitive, and neurological changes.

Once depression sets in, several other things begin to happen. First, people who are depressed become pessimistic about their future, come to see themselves as failures, stop taking care of themselves, and become irritable with, if not hostile toward, others. Depressed people are not fun to be around, and therefore it is not

surprising that under such conditions, alcohol and drug use increases (Peirce et al., 1994), and family discord emerges (Conger et al., 1992, 1994, 2000). Satisfaction with the marriage suffers and many relationships end (Fox & Chancey, 1998). Children who would otherwise receive warmth, encouragement, and compassion from their parents now receive distracted attention, criticism, and punitive and inconsistent discipline (McLloyd, 1989; Mistry et al., 2002). These changes in parenting lead to changes in children's behaviour at school in terms of a drop in academic performance and increases in disruptive and antisocial behaviour (Clark-Lempers et al., 1990; Flanagan & Eccles, 1993). Children of depressed parents are at increased risk of developing depression themselves, and are also at increased risk of developing alcohol and drug dependencies (Conger et al., 2000; Kessler, Davis, & Kendler, 1997). As the study by Margolin and Gordis (2003) indicated, such children are also at increased risk for child abuse. Soon, financial stress cascades into a series of stressors that overwhelm one's ability to cope (Hobfall & Spielberger, 1992; Price et al., 2002).

Although it is difficult to assess the consequences of financial stress for society, research suggests that depression, alcohol, and drug problems in adults cost the Canadian economy in excess of \$30 billion per year (Shain et al., 2002). Added to this is the cost of depression and antisocial behaviour problems in children. Such children also tend to set lower expectations for their own careers. These costs, if left unchecked, are paid by the current society as well as society of tomorrow.

The picture we paint may seem rather bleak. We wish to emphasize, however, that there is hope. Many of the studies indicated that the effects of financial stress are largely indirect and attributable to depression. That is, financial stress increases one's risk of depression, which in turn increases one's risk of developing health problems, marital discord, inconsistent and ineffective parenting, and emotional and behavioural problems in children. If depression is

the lynchpin, then this suggests that preventing or limiting the depression will reduce or eliminate the effects of the stress on families. Research on families who experienced significant financial stress during the Great Depression (Elder, 1974; Liker & Elder, 1983), and, more recently, the agricultural crisis of the mid 1980s (Conger, Reuter, & Elder, 1999), indicates that two factors seem to be important in buffering individuals and families from the negative effects of financial stress: (1) a strong sense of mastery (i.e., a firm belief that one can manage and control stressful situations); and (2) a strong and supportive marital relationship. A strong and supportive relationship is not simply one of warmth and caring, it also requires the ability to problem solve together.

These findings on the buffers of financial stress suggest ways of limiting its consequences. For instance, developing problem solving and financial management skills (to the extent that such skills will increase a sense of mastery) may not only serve to mitigate the stress, but also may be perceived as a positive outcome. Second, focusing on efforts to strengthen and maintain the spousal relationship during times of financial stress may also prevent or limit feelings of depression and loss of self-esteem, which in turn should buffer children from the negative outcomes noted above. It is often noted by crisis survivors that family relationships have been enriched by their experience (Davis, Nolen-Hoeksema, & Larson, 1998; Tedeschi & Calhoun, 2004).

It may be tempting to regard financial stress as something afflicting only the lower ends of socioeconomic scale, and perceive that the results we have presented here speak more about social class than they do about financial stress. This is decidedly not the case. Most of the studies we reviewed here were based on middle-class samples. The researchers took pains to control (statistically) for socioeconomic status, and to show that effects were attributable to *changes* in level of income, debt, or level of financial pressure from one point in time to another. Certainly people with a larger pool of savings from which they may draw in times of financial stress will feel less financial pressure (or it may

take them longer to feel the pressure), but once the pressure is there, they are as apt to experience the consequences of financial stress as those who no longer have a pool of savings from which to draw.

Our review has focused largely on the effects of financial stress on families. A recent report published by the Vanier Institute of the Family, however, suggests that single people in Canada aged 18-24 tend to suffer great economic hardship (Sauvé, 2004). This demographic group has relatively low income, negligible savings, and a high debt load, which puts them at high risk for financial stress. To the extent that these individuals lack the mastery skills and a spousal relationship that have been shown to buffer others from the negative effects of financial stress, this group may be particularly at risk for depression, alcohol and drug abuse, and perhaps even suicide. Although a few of the studies we reviewed above suggest that this demographic group does experience financial stress (e.g., Hagquist, 1998; Lange & Byrd, 1998), the comparative research between younger and older adults has not yet been conducted.

Unlike many other stressors that people may experience over the course of their adult life, financial stress is unique insofar as it is private. People under financial stress may be ashamed to admit their problems, and so may delay seeking assistance and support. In a society that measures worth in financial terms, to be unable to meet one's financial obligations may imply that one has failed at a central task in life, and therefore, that one has no claim to self-respect. It is little wonder that people will put off or avoid dealing with financial pressures for as long as possible, and do all that they can to maintain the outward appearance of financial well-being. This is not an effective strategy.

The research literature reviewed was largely based on groups of people facing financial stress because of job loss. Financial stress attributable to gambling, overspending, or other personal reasons may have other important consequences. Further research is needed to understand the scope and gravity

of these consequences. Regardless of whether one's financial problems are shared by a region (e.g., due to an economic downturn) or are individual (e.g., due to one's own financial mismanagement), in many respects financial stress is still an individual issue. Irrespective of how common financial stress is in a community, people still withdraw from social activities, get depressed, blame themselves, and argue more with their family members (Jahoda, 1979).

Most of the research in the psychological literature is based on American and European samples. We found no published research drawing from Canadian samples. Although bankruptcies are three times more common in the United States than they are in Canada, it is unclear whether the impact of financial stress is any different in Canada. Research is necessary to determine whether the Canadian social safety net softens the impact of financial stress.

#### References

- Bartley, M. (1994). Unemployment and ill health: Understanding the relationship. *Journal of Epidemiology and Community Health*, 48, 333-337
- Brenner, M. H. (1973). *Mental illness and the economy.* Cambridge, MA: Harvard University Press.
- Buss, T., & Redburn, F. S. (1983). *Mass unemployment: Plant closings and community mental health*. Beverly Hills, CA: Sage.
- Clark-Lempers, D., Lempers, J. D., & Netusil, A. J. (1990). Family financial stress, parental support, and young adolescents' academic achievement and depressive symptoms. *Journal of Early Adolescence*, 10(1), 21-36.
- Conger, R., Conger, K., Elder, G., Lorenz, F., Simons, R., & Whitbeck, L. (1993a). Family economic status and adjustment of early adolescent girls. *Developmental Psychology*, 29, 206-219.
- Conger, R.D, Conger, K.J., Elder, G.H., Jr., Lorenz, F.O., Simons, R.L., & Whitbeck, L.B. (1992). A family process model of economic hardship and adjustment of early adolescent boys. *Child Development*, *63*, 526-541.
- Conger, R. D., Conger, K. J., Matthews, L. S. & Elder, G. H. (1999). Pathways of economic influence on adolescent adjustment *American Journal of Community Psychology*, *27*, 519-541
- Conger, R. D., Ge, X., Elder, G. H., Lorenz, F. O., & Simons. (1994). Economic stress, coercive family process, and developmental problems of adolescents. *Child Development*, *65*, 541-561.
- Conger, R. D., Ge, X. J., & Lorenz, F. O. (1994). Economic stress and marital relations. In R. Conger et al., (Eds.), *Families in troubled times: Adapting to change in rural America. Social institutions and social change.*(pp. 187-203). Hawthorne, NY: Aldine de Gruyter.
- Conger, R. D., Lorenz, F. O., Elder, G. H., Simons, R. L., Ge, X. (1993b). Husband and wife differences in response to undesirable life events. *Journal of Health and Social Behavior*, *34*, 71-88.
- Conger, R. D., Reuter, M, A., & Elder, G. H. (1999). Couple resilience to economic pressure. *Journal of Personality and Social Psychology*, 76, 54-71.
- Conger, R. D., Wallace, L. E., Sun, Y., Simons, R. L., McLoyd, V. C., Brody, G. H. (2002). Economic pressure in African American families A replication and extension of the Family Stress Model. *Developmental Psychology*, *38*, 179-193.

- Conger, K. J., Rueter, M. A. & Conger, R. D. (2000). The role of economic pressure in the lives of parents and their adolescents: The Family Stress Model. In L. J. Crockett and R. K. Silberiesen (Eds.) *Negotiating adolescence in times of social change*. Cambridge: Cambridge University Press.
- Coyne, J. C., Kessler, R. C., Tal, M., & Turnbull, J. (1987). Living with a depressed person. *Journal of Consulting and Clinical Psychology*, *55*, 347-352.
- Davis, C. G., Lehman, D. R., Silver, R. C., Wortman, C. B., & Ellard, J. H. (1996). Self-blame following a traumatic event: The role of perceived avoidability. *Personality and Social Psychology Bulletin*, 22, 557-567.
- Davis, C. G., Lehman, D. R., Wortman, C. B., Silver, R. C., & Thompson, S. C. (1995). The undoing of traumatic life events. *Personality and Social Psychology Bulletin, 21,* 109-124.
- Davis, C. G., Nolen-Hoeksema, S., & Larson, J. (1998). Making sense of loss and benefiting from the experience: Two construals of meaning. *Journal of Personality and Social Psychology*, 75, 561-574.
- Elder, G. H. (1974). *Children of the Great Depression*. Chicago: University of Chicago Press.
- Elder, G. H., Nguyen, T., & Caspi, A. (1985). Linking family hardship to children's lives. *Child Development*, *56*, 361-375.
- Flanagan, C. A., & Eccles, J. S. (1993). Changes in parents' work status and adolescents' adjustment at school. *Child Development, 64,* 246-257.
- Fox, G. L., & Chancey, D. (1998). Sources of economic distress: Individual and family outcomes. *Journal of Family Issues*, *19*, 725-749.
- Galambos, N. L. & Silbereisen, R. K. (1987). Income change, parental life outlook, and adolescent expectations for job success. *Journal of Marriage and the Family*, 49, 141-149.
- Ge, X., Conger, R. D., Lorenz, F. O., Elder, G. H., & Montague, R. B., Simons, R. L. (1992). Linking family economic hardship to adolescent distress. *Journal of Research on Adolescence*, *2*, 351-378.
- Hagquist, CEI (1998). Economic stress and perceived health among adolescents in Sweden. *Journal of Adolescent Health*, 22, 250-257.

- Herzberg, J. H. (1990). Economic trauma: A public health problem. In J. Noshpitz, and R. D. Coddington, (Eds.), *Stressors and the Adjustment Disorders* (pp. 447-454). Oxford, UK: Wiley & Sons.
- Hobfall, S. E., & Spielberger, C. D. (1992). Family stress: Integrating theory and measurement. *Journal of Family Psychology, 6,* 99-112. Jahoda, M. (1979). The impact of unemployment in the 1930s and the 1970s. *Bulletin of the British Psychological Society, 32,* 309-314.
- Jahoda, M. (1988). Economic recession and mental health: Some conceptual issues. *Journal of Social Issues*, 44(4), 13-23.
- Kessler, R. C., Davis, C. G., & Kendler, K. S. (1997). Childhood adversity and adult psychiatric disorder in the U.S. National Comorbidity Survey. *Psychological Medicine*, *27*, 1101-1119.
- Kessler, R. C., Turner, J. B., & House, J. S. (1989). Unemployment, reemployment, and emotional functioning in a community sample. *American Sociological Review, 54,* 648-657.
- Kokko, K., & Pulkkinen, L. (1998). Unemployment and psychological distress: Mediator effects. *Journal of Adult Development*, *5*, 205-217.
- Lange, C., & Byrd, M. (1998). The relationship between perceptions of financial distress and feelings of psychological well-being in New Zealand university students. *International Journal of Adolescence and Youth, 7,* 193-209.
- Lempers, J D, Clark-Lempers, D., & Simons, R L (1989) Economic hardship, parenting, and distress in adolescence. *Child-Development*, *60*,25-39
- Liker, J. K. & Elder, G. H. (1983). Economic hardship and marital relations in the 1930s. *American Sociological Review*, *48*, 343-359
- Lorenz, F. O., Conger, R. D., & Montague, R. (1994). Doing worse and feeling worse: Psychological consequences of economic hardship. *Social Institutions and Social Change*, 167-186.
- Margolin, G, Gordis, E. B. (2003). Co-occurrence between marital aggression and parents' child abuse potential: The impact of cumulative stress. *Violence and Victims*. *18*(3), 243-258.
- McLoyd, V. C. (1989) Socialization and development in a changing economy: The effect of parental job and income loss on children, *American Psychologist*, 44, 293-302.

Mistry, R. S., Vandewater, E. A., Huston, A. C., McLoyd, V. C. (2002). Economic Well-Being and Children's Social Adjustment: The Role of Family Process in an Ethnically Diverse Low-Income Sample. *Child Development*, 73, 935-951.

Moore, R., Mao, Y., Zhang, J., & Clarke, K. (1997). *Economic burden of illness in Canada, 1993*. Laboratory Centre for Disease Control. Health Canada. Ottawa.

Nolen-Hoeksema, S., & Davis, C. G. (1999). "Thanks for sharing that:" Ruminators and their social support networks. *Journal of Personality and Social Psychology*, 77, 801-814.

Office of Superintendent of Bankruptcy, Canada. (2004). *Annual statistics report for the 2003 Calendar Year*. Ottawa, ON. Available at http://osb-bsf.gc.ca

Pearlin, L. I., Menaghan, E. G., Lieberman, M. A., & Mullan, J. T. (1981). The stress process. *Journal of Health and Social Behavior*, *22*, 337-356.

Peirce, R. S., Frone, M. R., Russell, M., & Cooper, M. L. (1994). Relationship of financial strain and psychosocial resources to alcohol use and abuse: The mediating role of negative affect and drinking motives. *Journal of Health and Social Behavior*, 35, 291-308.

Pickett, W., Davidson, J. R., & Brison, R. J. (1993). Suicides on Ontario farms. *Canadian Journal of Public Health*, *84*, 226 – 230.

Pittman, J.F. & Lloyd, S.A. (1988). Quality of family life, social support and stress. *Journal of Marriage and the Family*, 50, 53-67.

Price, R. H., Choi, J. N., Vinokur, A. D. (2002). Links in the chain of adversity following job loss: How financial strain and loss of personal control lead to depression, impaired functioning, and poor health. *Journal of Occupational Health Psychology*, 7(4), 302-312.

Rantakeisu, U., Starrin, B., & Hagquist, C. (1999). Financial hardship and shame: A tentative model to understand the social and health effects of unemployment. *British Journal of Social Work*. 29(6), 877-901.

Sapolsky, R. M. (1998). Why zebras don't get ulcers: An updated guide to stress, stress-related diseases, and coping. New York: W. H. Freeman.

Sauvé, R. (2004). *The current state of Canadian family finances – 2003 Report*. Ottawa, ON: Vanier Institute of the Family. Available online: www.vifamily.ca

Shain, M., Bender, A., Gibson, J. B., Gnam, W. H., Sui, M., & Suurvali, H. (2002, November 14). *Mental health and substance use at work: Perspectives from research and implications for leaders.* A background paper prepared by the

Scientific Advisory Committee to the Global Business and Economic Roundtable on Addition and Mental Health. Toronto, ON.

Siegal, M. (1984). Economic deprivation and the quality of parent-child relations: A trickle-down framework. *Journal of Applied Developmental Psychology*, 5, 127-144.

Simons, R.L., Lorenz, F.O., Wu, C., and Conger, R.D. (1993). Social network and marital support as mediators and moderators of the impact of stress and depression on parental behavior. *Developmental Psychology* 29, 368–81.

Stokes, G. & Cochrane, R. (1984). A study of the psychological effects of redundancy and unemployment. *Journal of Occupational Psychology*, 57, 309–22.

Takeuchi, D. T., Williams, D. R., & Adair, R. K. (1991). Economic stress in the family and children's emotional and behavioral problems. *Journal of Marriage and the Family, 53,* 1031–1041.

Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry*, *15*, 1-18.

Turkington, C. (1985). Farmers strain to hold the line as crisis uproots mental health. *American Psychological Association Monitor*, *16* (4), p. 1, 26 - 27, 38.

Vinokur, A. D., Price, R. H., & Caplan, R. D. (1996). Hard times and hurtful partners: How financial strain affects depression and relationship satisfaction of unemployed persons and their spouses. *Journal of Personality and Social Psychology*, 71, 166-179.

Wasserman, I. M. (1992). Economy, work, occupation, and suicide. In R. W. Maris, A. L. Berman, J. T. Maltsberger, & R. I. Yufit (Eds.), *Assessment and prediction of suicide* (pp. 520 – 539). New York: Guildford Press.

Waters, L. E., & Moore, K. A. (2002). Self-esteem, appraisal, and coping: A comparison of unemployed and re-employed people. *Journal of Organizational Behavior*, 23, 593 - 604.

Werner, E. E., & Smith, R. (1982). *Vulnerable but invincible: A study of resilient children.* New York: McGraw-Hill.

Whitbeck, L. B., Simons, R. L., Conger, R. D., Wickrama, K. A. S., Ackley, K. A., Elder, G. H. Jr. (1997). The effect's of parent's working conditions and economic hardship on parenting behaviors and children's self-efficacy. *Social Psychology Quarterly*, *60*, 291-303.