

## **Victimization, Healthcare Use and Health Maintenance<sup>1</sup>**

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**Objective:** *The present study examines the relationship between past abuse, health maintenance, and healthcare use in an adult primary-care sample.*

**Method:** *Sixty-five patients (9 men, 57 women) indicated that they had been victims of abuse, either as adults or as children, on a standardized five-page questionnaire for new patients. They ranged in age from 18 to 88 (M=47). Our comparison group was 65 non-abused patients matched for age and sex.*

**Results:** *The abused patients reported significantly more symptoms and were significantly more likely to have had surgery. But there was no significant difference in number of doctors or hospitalizations they had had in the past five years. Abused patients were more likely to engage in harmful behaviors than their non-abused counterparts, but there was no significant difference in health maintenance activities between the groups. They were more likely to report depression and less likely to describe their health as “good” than their non-abused counterparts.*

**Conclusion:** *Patients with history of abuse have higher utilization rates of some types of health care services. Their health may also be influenced by negative behaviors, depression, and self-rated health.*

**Key Words:** **Victimization, healthcare use, health behaviors, surgery**

Researchers have noted higher rates of illness and healthcare use among victims of violence than in the general population (Drossman, Leserman, Nachman, Li, Gluck, Toomey, & Mitchell, 1990; Felitti, 1991; Koss, Koss, & Woodruff, 1991). Why should the experience victimization influence health? There are several factors that have the potential to contribute to health problems among those with a history of victimization (Koss et al., 1991). The first possibility is that poor health is related to health-compromising behaviors. Not surprisingly, people who have experienced victimization are more likely to engage in harmful and self-destructive behaviors than are those who

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have not (Gladstone, Parker, Wilhelm, Mitchell, 1999; Laws, 1993). These behaviors include risky sexual practices, substance abuse, smoking, overeating, and not wearing seat belts (DeWit, MacDonald, & Offord, 1999; Kaplan, Pelcovitz, Salzinger, Weiner, 1998; Kendall-Tackett & Marshall, 1998; Koss et al., 1991; Laws, 1993).

Another possible way that victimization may influence health is through depression. Depression is a well-established immunosuppressor (Weisse, 1992), and has been shown to affect the immune system even on the level of the white blood cells (Avisar, Nechamkin, Richter, & Schreiber, 1997). Conversely, optimism has been shown to boost the immune system including elevating number of T helper cells, and raising natural killer cell cytotoxicity (Segerstrom, Taylor, Kemeny, & Fahey, 1998).

Depression is also a common symptom among victims of all types of interpersonal violence (Briere & Elliot, 1994; Felitti, 1991; Moeller, Bachman & Moeller., 1993; Walker, Katon, Roy-Byrne, Jemelka, & Russo, 1993), but the risk may be particularly high in victims of childhood abuse. In one recent study, patients who had been sexually abused in childhood reported the highest levels of depression, even when compared with other depressed patients (Gladstone et al., 1999).

Finally, health perception, or how healthy people perceive themselves to be, is a potent predictor of both illness and mortality (Ornstein & Sobel, 1989). In a study of 3,500 Canadian senior citizens, those who rated their health as “poor” were almost three times more likely to die during the seven-year study as those who rated their health as “excellent.” This proved to be a *more* accurate predictor of mortality than did the objective rating of physicians (Moosey & Shapiro, 1982). Another study of 7,000 adults in California found similar results even after controlling for health behavior, psychological state (including depression), and social ties (Kaplan & Camacho, 1983).

Past abuse or victimization can influence health perception, with adult survivors expressing less overall satisfaction with their health than did their non-abused counterparts (Moeller et al., 1993). A recent meta-analysis of seven studies found that women who had been sexually victimized, either as adults or children, were more likely to consider their health to be poor (Golding, Cooper, & George, 1997). These findings remained even after controlling for depression, suggesting that past victimization had a relationship with health perception that was independent of depression or current distress.

The present study considers the effects of both child and domestic abuse on health. We examine four specific indices of health: healthcare use, health behaviors (both good and bad), depression, and health perception. As found in previous studies, we expect higher healthcare use among members of the abused group. Further, we predict lower rates of health maintenance behavior and higher rates of participation in harmful behaviors. Finally, we expect higher rates of self-reported depression and lower perceptions of health among victimized patients than among their non-abused counterparts.

## Method

### Subjects

A sample of 130 patients (65 abused, 65 non-abused controls) was drawn from an adult primary-care practice of 905 patients in a small, affluent, predominantly Caucasian community in northern New England. We first identified all patients who answered “yes” to at least one of two questions about either child or domestic abuse ( $N=65$ ; 9 males, 56 females). We then gathered our control group of 65 non-abused patients by matching for age and sex with members of the abused group. The subjects ranged in age from 18 to 88 ( $M=47$ ).

Of the 65 patients in the abused group, 33 indicated that they had experienced physical or sexual abuse as children, 21 indicated that they had experienced domestic abuse as adults, and 11 indicated that they had experienced both child and domestic abuse. Preliminary analyses revealed no significant difference in symptoms reporting between those abused as adults and those abused as children, so these data were combined.

### Questionnaire

The questionnaire was a five-page, 169 item, closed-ended (yes-no), self-administered questionnaire that was used clinically as part of the new-patient work-up. The questionnaire included the following: demographic information, reason for current visit; self-rated health (“Do you consider yourself to be a healthy person?”); past medical history; health maintenance; family history of illness; social history including substance use and victimization history (“Were you sexually or physically abused as a child?” and “Have you been the victim of domestic abuse as an adult?”); history of recent travel and exposure to toxins (e.g., asbestos); sexual history; menstrual and reproductive history; and a “review of systems,” which asked about 44 symptoms, including depression.

### Healthcare Use

Healthcare use included number of doctor visits (“How many doctors have you seen in the last five years?”), number of hospitalizations (“How many hospital admissions have you required in the last five years?”), and number of surgeries (“Have you ever had surgery?”). Finally, number of symptoms was calculated by adding together the 44-item “review of systems” section of the questionnaire.

### Health Maintenance

Health maintenance incorporates two distinct types of behavior: engaging in positive, health-promoting behaviors and abstaining from harmful ones. Both healthful and harmful behaviors were considered. The questions included are similar to those used by Koss et al. (1991).

### **Healthful Behaviors**

Five questions were combined related to health maintenance. These are as follows: Do you wear a seat belt in automobiles?, Do you wear a helmet on bicycles or motorcycles?, Do you wear sun block during outdoors activities?, Do you examine your breasts for lumps?, and Do you and your partner practice “safe sex”?. Two other questions—Do you examine your testicles for masses? And Date of last pap smear? -- were excluded because of the large amount of missing data.

### **Harmful Behaviors**

Five questions were also combined for a measure of participation in harmful activities. These included: Do you smoke?, Do you use other tobacco products such as “snuff” or “chew”?, Do you drink more than two glasses of beer or wine per day?, Have you ever used recreational drugs? And Have you ever used intravenous drugs?

### **Data Analysis**

The data were analyzed by comparing the abused group with the non-abused group using  $X^2$  and one-way ANOVA.

## **Results**

### **Depression and Health Perception**

Not surprisingly, the abused group was three times more likely to report depression than their non-abused counterparts, ( $X^2=10.522, p<.001$ ). The subjects in the abused group were also less likely to consider themselves to be healthy ( $X^2=6.07, p<.014$ ). Remarkably, even with this substantial number of symptoms reported by the abused patients (see below), 80% indicated that they considered themselves to be healthy persons. However, 97% of the non-abused group considered themselves to be healthy, and this was a significant difference.

### **Healthcare Use**

The abused group was significantly more likely to have had surgery ( $\chi^2=6.45, p<.01$ ), and to have had surgery more times ( $M=2.13; F(1,118)=4.86, p<.029$ ) than their non-abused counterparts ( $M=1.52$ ). Abused patients also reported twice as many symptoms ( $M=8.76$ ) as did their non-abused counterparts ( $M=4.38; F(1,77)=13.33, p<.0001$ ).

Patients with an abuse history had seen more doctors within the past five years ( $M=4.48$ ) than their non-abused counterparts ( $M=3.34$ ), but this difference was not significant,  $F(1,129)=1.79$ ,  $p<.182$ . Similarly, abused patients had been hospitalized slightly more often ( $M=1.43$ ) than their non-abused counterparts ( $M=1.25$ ), but this difference was also not significant,  $F(1.80)=1.11$ ,  $p=.657$ .

### **Health Maintenance**

Abused patients were significantly more likely to engage in harmful behaviors ( $M=.76$ ) than were their non-abused counterparts ( $M=.42$ ;  $F(1,84)=4.50$ ,  $p<.037$ ). There was no significant difference in health maintenance practices between abused ( $M=3.71$ ) and non-abused ( $M=3.32$ ) patients,  $F(1,126)=1.26$ ,  $p<.27$ .

### **Discussion**

The present research suggests a link between past victimization and health maintenance, perceptions of health, and use of health care services such as surgery. Patients with a history of victimization reported more symptoms and surgeries, participated in more harmful behaviors, reported more depression, and were less likely to describe their health as good. Contrary to our prediction, there were no significant differences in the number of doctors seen, number of hospitalizations, and participation in health-enhancing behaviors.

There were several limitations to our study. First, we may have had under-reporting of abuse history, possibly due to wording of the questions. For example, the question on domestic violence asked patients to identify themselves as “victims of domestic abuse.” We might have had a higher rate of positive response if we had asked if they had ever been hit by a spouse or partner. For both types, we had limited information about the abuse itself. The question about child abuse does not differentiate between physical and sexual abuse. And for both abuse questions, we do not know the identity of the perpetrator, the type and severity of abuse that occurred, the frequency and duration of the abuse experience, and the level of force that was involved. Each of these factors has been found to contribute to the severity of the abuse experience, which has been related to severity of symptoms in past studies (Golding, Cooper, & George, 1997; Leserman, Drossman, Li, Toomey, Nachman, & Glogau, 1996).

There were also some limitations to the questions we asked about healthcare use and health maintenance. For example, our questionnaire asked patients for the number of *different* doctors they had seen over the past five years. This question does not capture the situation where a patient had seen the *same* doctor on multiple occasions. A question of that sort may have more accurately captured the experiences of some of these patients. We also feel our questions on health maintenance had limits. We asked about seat belt use, safe sex, regular check-ups and self-checks, but we did not ask about some of the more prominent factors in health maintenance including diet, exercise and regular sleeping habits.

In summary, we found that patients who had a history of victimization reported more depression, had worse perceptions of their health, had more surgery, and reported a greater number of symptoms. Our findings are consistent with a number of other studies. Even in our relatively healthy sample taken from primary care, we find striking differences in variables that are related to both current and future health. We hope that our findings will motivate researchers to investigate this issue more comprehensively. We also hope that healthcare providers become more knowledgeable about the potential health consequences of victimization. For indeed, the health care needs of these men and women “transcend the traditional focus on emergency care and forensic evaluation” (Koss et al, 1991, p. 342). Ultimately, we’d like to see research translated into compassionate and comprehensive care for all survivors of violence and abuse.

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