RUSH UNIVERSITY MEDICAL CENTER

Adverse Childhood Environment In Fibromyalgia Patients

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ABSTRACT

INTRODUCTION: Whether primarily genetic or environmental factors are involved in the etiology of fibromyalgia is unclear. We utilized an online survey and an identical questionnaire in a rheumatology clinic to evaluate the childhood environment of fibromyalgia patients and controls, including their recollections of physical, emotional, and sexual abuse during childhood and psychiatric diagnoses in their first degree relatives. To avoid confounding by gender, only female patients were included in the analyses.

METHODS: 606 self-described female fibromyalgia patients and 126 female controls without fibromyalgia responded to a survey through the community volunteer fibromyalgia organization, AFFTER (Advocates for Fibromyalgia Funding, Treatment, Education and Research). Respondents were asked about childhood abuse and family histories of ADD/ADHD, alcoholism, anxiety disorders, bipolar disorders, depression, and obsessive-compulsive disorders in first-degree relatives. The chi-square test of association was done to compare fibromyalgia patients and controls with respect to their childhood environments.

RESULTS: Respondents were predominately middle-aged (58% aged 36-55) and Caucasian (91%). Fibromyalgia patients were significantly more likely than controls to report that they had experienced physical, emotional, or sexual abuse as children ($p < 0.001$):

TYPE OF CHILDHOOD ABUSE	% REPORTING ABUSE	
	Fibromyalgia Patients	Controls
Physical	32%	8%
Emotional	57%	21%
Sexual	28%	9%

Fibromyalgia patients were also significantly more likely than controls to report having a parent with a history of anxiety disorder: mother, 22% vs. 6% ($p < 0.001$); father, 7% vs. 2% ($p = 0.047$). The fibromyalgia coping scores for patients who reported abuse were significantly lower (worse) than those for patients who did not report abuse: physical abuse, 4.1 + 2.0 vs. 4.8 + 2.2 ($p < 0.001$); emotional abuse, 4.2 + 2.0 vs. 5.1 + 2.3 ($p < 0.001$); sexual abuse, 4.1 + 2.0 vs. 4.7 + 2.2 ($p = 0.003$).

CONCLUSIONS: Patients with fibromyalgia reported a more difficult childhood environment than did controls. This includes more frequent physical abuse, emotional abuse, and sexual abuse, as well as an increased incidence of anxiety disorder in parents. Patients who reported abuse found it harder to cope with fibromyalgia than did other patients. Further investigation into the impact of childhood environmental factors on people who develop fibromyalgia is needed.

INTRODUCTION

Whether primarily genetic or environmental factors are involved in the etiology of fibromyalgia is unclear. We utilized an online survey and an identical questionnaire in a rheumatology clinic to evaluate the childhood environment of fibromyalgia patients and controls, including their recollections of physical, emotional, and sexual abuse during childhood and psychiatric diagnoses in their first degree relatives. To avoid confounding by gender, only female patients were included in the analyses.

The potential role of adverse childhood experiences in the vulnerability for development of fibromyalgia has been previously evaluated. A study in *Arthritis and Rheumatism* (1999) by Boisset-Pioro et al. raised the possibility that sexual and physical abuse were more common in fibromyalgia patients than in controls.

Goldberg et al. in *Disability and Rehabilitation* (1999), found a relationship between traumatic events in childhood and chronic pain. Fibromyalgia patients commonly reported abuse, family alcohol dependence and a history of drug dependence.

Imbierowicz et al. in the *European Journal of Pain* (2003) reported that fibromyalgia patients showed the highest score of childhood adversities compared to other groups. They reported increased sexual and physical maltreatment, a poor emotional relationship with both parents, a lack of physical affection, recall of the parents' physical quarrels, alcohol or other problems of addiction in the mother, separation, and a poor financial situation before the age of 7. These experiences were found significantly less frequently in the control group.

In research by McBeth et al. in *Arthritis and Rheumatism* (1999), the authors suggested that those individuals with high tender point counts were substantially more likely to report adverse childhood experiences, including loss of parents (odds ratio 2.1) and abuse (odds ratio 6.9). The comparison group consisted of subjects who demonstrated psychological distress on a general health questionnaire but had four or fewer tenderpoints.

Anderberg, in the *Journal of European Psychiatry* (2000), reported that stressful life events in childhood, adolescence, and adulthood seemed to be very common in fibromyalgia and that these experiences were more negative than the life events experienced by healthy controls. Conflict with parents was the most common life event. Before onset, 65% of the patients experienced some negative life event. Economic problems and conflicts with husband/partner were common. During the previous year, 51% of the patients had life events that they described as very negative, compared to 24.5% of the controls.

Patients who reported abuse found it harder to cope with fibromyalgia than did other patients. Schanberg et al. in *Arthritis Care and Research* (1996) used the Coping Strategies Questionnaire (CSQ) to determine that juvenile fibromyalgia patients had a great deal of difficulty coping with pain and other symptoms.

METHODS

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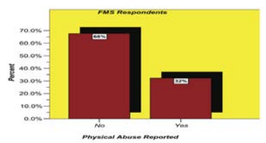
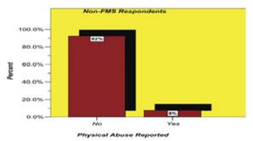
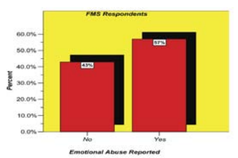
RESULTS

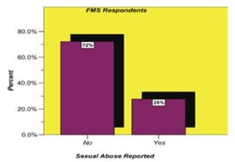
Respondents were predominately middle-aged (58% aged 36-55) and Caucasian (91%). Fibromyalgia patients were significantly more likely than controls to report that they had experienced physical, emotional, or sexual abuse as children ($p < 0.001$).

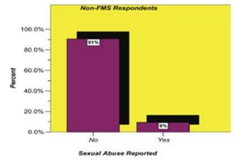
Fibromyalgia patients were also significantly more likely than controls to report having a parent with a history of anxiety disorder: mother, 22% vs. 6% ($p < 0.001$); father, 7% vs. 2% ($p = 0.047$). The fibromyalgia coping scores for patients who reported abuse were significantly lower (worse) than those for patients who did not report abuse: physical abuse, 4.1 + 2.0 vs. 4.8 + 2.2 ($p < 0.001$); emotional abuse, 4.2 + 2.0 vs. 5.1 + 2.3 ($p < 0.001$); sexual abuse, 4.1 + 2.0 vs. 4.7 + 2.2 ($p = 0.003$).

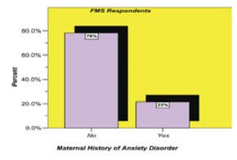


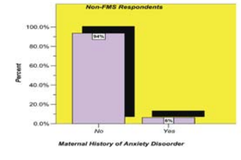


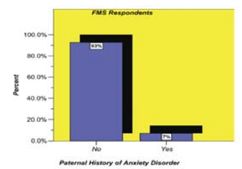


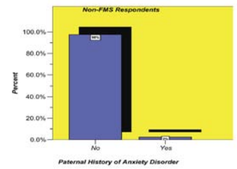












CONCLUSIONS

Patients with fibromyalgia reported a more difficult childhood environment than did controls. This includes more frequent physical abuse, emotional abuse, and sexual abuse, as well as an increased incidence of anxiety disorders in parents.

It is possible that poor coping strategies are developed during early childhood and might be affected by abuse, conflicts with parents and other family members, and negative familial influences, including alcoholism, drug abuse, parental conflict, and increased anxiety in family members.

Further investigation into the impact of childhood environmental factors on people who develop fibromyalgia is needed.