



Aggressive behavior and employment histories in patients from an internal medicine outpatient clinic

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Abstract

A number of studies have examined the relationships between aggression and various facets of the work environment. However, to our knowledge, the relationship between self-reported aggressive behaviors and corresponding employment histories has never been previously explored. Using a cross-sectional approach and a self-report survey methodology in a consecutive sample of 325 internal medicine outpatients, we examined lifetime histories of 21 aggressive behaviors and 4 employment variables. In both men and women, a higher number of aggressive behaviors correlated with a greater number of different jobs held, greater likelihood of being paid “under the table,” and a greater number of firings. However, only in men was the number of aggressive behaviors related to the percentage of time employed as an adult. According to findings, a history of aggressive behavior appears to be associated with compromised employment viability in adulthood. © 2013 Elsevier Inc. All rights reserved.

1. Introduction

A number of empirical studies on the topic of aggression and employment have been undertaken. For example, various studies have examined violence in the work setting [1–3], including patient violence toward various types of health care workers [4,5]; bullying in the workplace, especially among nursing employees [6]; and stalking in the work environment [7]. Studies have also examined the effects of unemployment on aggression [8–10], the relatively lower employment status of victims of partner violence [11,12], and relationships between general aggression and work injury/accidents [13]. However, it appears that the relationship between aggressive behavior and overall employment history has not been studied.

Intuitively, aggressive behavior would seem to be a liability in terms of an individual’s efforts at successful employment. In a related prospective study, Brook and Newcomb [14] examined aggressive traits in children aged 5 to 10 years and examined participants 16 years later; in-

vestigators found that childhood aggression was subsequently related to problematic occupational behavior. In another study, Harris [15] found a negative relationship between scores on 2 aggression scales and employee “integrity,” which was defined by the authors as “dependability.”

In the current study, we examined the relationship between self-reported histories of aggression and employment, measuring these variables in new ways and simultaneously considering educational attainment. We anticipated that a greater range of lifetime aggressive behavior would correlate with less consistent and more problematic employment, even after controlling for educational attainment.

2. Methods

2.1. Participants

Participants in this study were men and women 18 years or older who were being seen at an internal medicine outpatient clinic for nonemergent medical care. The outpatient clinic is staffed by both faculty and residents in the Department of Internal Medicine, and is located in a midsized, midwestern city. Most patients recruited for this study were seen by resident providers. The recruiter excluded individuals with compromising medical (eg, pain), intellectual

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(eg, mental retardation), cognitive (eg, dementia), or psychiatric symptoms (eg, psychotic) of a severity that would preclude the candidate's ability to successfully complete a survey ($n = 62$).

At the outset, 480 individuals were approached and 369 agreed to participate, for a participation rate of 76.9%. Of these, 325 completed relevant study measures. Of the 325 respondents included in our analyses, 224 (68.9%) were female, with 2 (0.6%) participants not indicating their sex. Participants ranged in age from 18 to 87 years ($M = 49.74$; $SD = 15.53$). Most participants were white (86.3%), followed by African American (9.0%); 4.7% indicated some other ethnicity/race. With regard to educational attainment, all but 7.5% had at least graduated high school, whereas 30.9% had earned a 4-year college degree or higher.

2.2. Procedure

During clinic hours, one of the authors (J.S.L.) positioned himself in the lobby of the internal medicine outpatient clinic, approached consecutive incoming patients, and informally assessed exclusion criteria. That is, individuals who appeared too ill or had language difficulties were not invited to participate. This recruitment approach was deemed most practical in a busy primary care clinic in which the study surveys needed to be completed in a timely fashion (ie, before the patient's encounters with their primary care physician). Most exclusions were related to language difficulties.

With potential candidates, the recruiter reviewed the focus of the project and then invited each to participate. Each participant was asked to complete a 6-page survey, which took about 10 minutes. Participants were asked to place completed surveys into sealed envelopes and then into a collection box in the lobby.

In addition to a demographic query, the survey contained 2 additional sections. The first of these explored participants' employment history. Specifically, participants were asked the following: (a) "Since age 18, how many full-time different jobs have you had in your lifetime?" (b) "Since age 18, what percent of the time have you been employed, part- or full-time?" (c) "Have you ever had any jobs that you were paid 'under the table' for?" and (d) "Have you ever been fired from a job?" Queries (a) and (b) were followed by blank spaces, whereas queries (c) and (d) were followed by yes/no response options. For query (d), "yes" responses were further examined through 10 provided options (eg, late for work, missed shifts/days, used unacceptable language), including "Other."

The final section of the survey contained a 21-item author-developed questionnaire inquiring about a history of externalized aggressive behaviors (labeled, "Aggressive Behavior Questionnaire," or ABQ; see Appendix). We developed this questionnaire to enable us to examine a broad array of multiple explicit, graphic, and aggressive behaviors, and we could not locate a questionnaire of a similar nature in the literature. Before the list of 21 behaviors, the

following stem was provided: "As an adult (18 years and older), have you ever..." Sample items included, "intentionally broken things when angry?", "hit your partner when angry?", "hit a child out of anger, not because of discipline?", "caused and gotten into a bar fight?" Response options were "yes" and "no," and the total number of affirmative responses was considered a general measure of the range of different forms of aggressive behavior in which the respondent had engaged. A principal components analysis revealed 7 factors with eigenvalues greater than 1. However, although the first factor accounted for 24.6% of the item variance and had an eigenvalue of 5.17, the second factor accounted for only 8.8% of the variance and its eigenvalue was only 1.85. Similarly, 17 of the 21 items had factor loadings of .35 or greater on the first factor. Accordingly, we calculated a single total score across all individual items. Cronbach α for the 21-item scale was .83.

This project was reviewed and exempted by the institutional review boards of both the corresponding community hospital (Kettering Medical Center, ID No. 234639-2) where the study took place and the university (Wright State University). Exempt status was based on the conclusion that the research presented no more than minimal risk to participants and involved no procedures for which written consent would normally be required outside the research context. Completion of the survey was assumed to function as implied consent, which was explicitly clarified on the cover page of the booklet.

3. Results

3.1. Job profile of the sample

The number of full-time jobs held during adulthood ranged from 0 to 50 ($M = 5.34$, $SD = 5.72$), with only 9 (2.8%) participants reporting never having held a full-time job as an adult. The estimated proportion of adulthood during which the respondent held any employment ranged from 0 to 100% ($M = 77.28\%$, $SD = 28.56\%$). Although 70 (21.5%) respondents indicated having been employed 100% of the time during adulthood, the most common response ($n = 86$; 26.5%) was to leave the item blank (missing data). Of the 325 respondents, 97 (29.8%) indicated having had a job in which he or she was paid "under the table," and 129 (39.7%) indicated having been fired from a job. The number of jobs these respondents had been fired ranged from 1 to 10, although most (89.1%) had been fired from only 1 (64.3%) or 2 (24.8%) jobs. Of the 10 possible choices for why the respondent was fired, only 5 were endorsed by at least 10% each (listed in order of frequency): other reason not listed (38.8%), missed shifts/days (24.8%), could not do the work (20.2%), late for work (13.2%), and did not get along with the boss (11.6%).

3.2. Correlations between aggression and employment variables

Scores on the ABQ ranged from 0 to 17 ($M = 2.63$, $SD = 3.09$), with 100 (30.8%) respondents denying having engaged in any of the 21 listed forms of aggressive behavior.

Because both aggression and employment may be correlated with each other through a common association with education, we began by examining that possibility. Indeed, there was a statistically significant correlation between scores on the ABQ and education ($r = -0.15$, $P < .01$). However, education was not statistically significantly correlated with the number of full-time jobs held during adulthood ($r = -0.03$, $P < .60$) or ever having been fired from a job ($r = 0.001$, $P < .99$). Education was statistically significantly correlated with ever having been paid under the table for employment ($r = -0.18$, $P < .001$) and with the estimated percentage of adulthood during which the respondent was employed ($r = 0.21$, $P < .001$). For those respondents who reported having ever been fired from a job ($n = 129$), scores on the ABQ were statistically significantly related to the number of such firings ($r = 0.32$, $P < .001$), whereas education was not ($r = -0.09$, $P < .35$). To examine possible sex differences, further comparisons were performed for men and women separately.

The results presented in this paragraph are for men only. Scores on the ABQ were positively correlated with the total number of different full-time jobs held during adulthood ($r = 0.21$, $P < .05$) and ever having been fired from a job ($r = 0.26$, $P < .05$). After controlling for education, scores on the ABQ were statistically significantly correlated with the estimated percentage of adulthood during which the respondent was employed (partial $r = -0.42$, $P < .001$) and ever having been paid under the table for employment (partial $r = 0.30$, $P < .001$). For those who had ever been fired ($n = 48$), the total number of different jobs from which the respondent had been fired was positively correlated with scores on the ABQ ($r = 0.42$, $P < .01$).

The results presented in this paragraph are for women only. Scores on the ABQ were positively correlated with the total number of different full-time jobs held during adulthood ($r = 0.38$, $P < .001$) and ever having been fired from a job ($r = 0.29$, $P < .001$). After controlling for education, scores on the ABQ were not statistically significantly correlated with the estimated percentage of adulthood during which the respondent was employed (partial $r = -0.05$, $P < .55$), but were statistically significantly correlated with ever having been paid under the table for employment (partial $r = 0.31$, $P < .001$). For those who had ever been fired ($n = 81$), the total number of different jobs from which the respondent had been fired was positively correlated with scores on the ABQ ($r = 0.26$, $P < .05$).

4. Discussion

In this sample of primary care patients, we found that for both men and women, an increasing number of aggressive behaviors reported in the past correlated with a greater number of different jobs held, greater likelihood of being paid under the table, and a greater number of firings from jobs. However, only in men was the number of aggressive

behaviors related to the percentage of time employed as an adult. In general, a greater range of different self-reported aggressive behaviors correlated with impaired employment viability for both men and women, even after controlling some variables for educational attainment.

Our findings are intuitively logical and confirm our expectations, yet leave particular questions unanswered. For one, we do not know if the correlations found in the current research indicate causal relationships. Second, we do not know the potential mediating or moderating variables in the observed correlations between aggression and compromised employment. For example, we do not know what employer-related variables might contribute to the relationship between aggressive behavior and impaired employment. According to various authors, a number of possible work factors may contribute to employee stress, including limited control over working hours [16]; overwork and excessive job demands [17]; lack of employer support, physical demands, and/or overemphasis on qualifications [18]; job insecurity and lack of work-family balance [19]; irregular shifts and telecommuting [20]; perceived inflexibility of the employer [21]; lower levels of autonomy [22]; and direct interpersonal conflict and lack of team coordination in the work environment [23]. Any of these preceding stressors might contribute to employee aggression and subsequent difficulties in employment viability.

This study has a number of potential limitations. First, all data were self-report in nature and subject to recollection bias. In addition, some participants may have succumbed to a socially desirable response set. Second, the use of percentages for participant responses may have resulted in inaccuracies, as some patients may not have had the numeracy skills to understand percentages. Alternatively, we might have considered a visual analog scale. Third, the low socioeconomic status of study participants may be a potential confound with regard to conclusions. In support of this possibility, Perez [24] found relationships between low socioeconomic status and perceptions of less job control, job security, and social support. In addition, Sareen and colleagues [25] found that low levels of household income were associated with an increased risk for incident psychiatric disorders, which may mediate relationships between aggressive behavior and employment history. Fourth, the overall sample size was modest. Fifth, the ABQ has not been validated. Sixth, excluded participants may have unintentionally introduced sampling bias, and missing data may have altered findings. Seventh, these findings are from a generally low-income internal medicine outpatient clinic, and as such may not generalize to community samples. Finally, we wish to emphasize that the cross-sectional methodology of this study does not allow for the analysis of a causal relationship between aggression history and employment history (ie, we cannot conclude that preexisting anger affects subsequent employment outcome). However, findings are novel to the literature and support a correlation between a history of externalized aggressive behaviors and lower employment viability in adulthood.

Avenues for future research are numerous. Future studies might expand on the study variables for aggression and include bullying others in the work environment, overt participant violence, and employment-influenced criminal convictions. In addition, future research might examine possible moderating variables such as various Axis I disorders (eg, anxiety and depressive disorders, substance use disorders) and Axis II disorders (eg, antisocial personality disorder) as well as the actual emotional quality of the work environment. Clearly, additional research is necessary to more fully understand the apparent relationship between aggression and impaired employment.

Appendix. Aggressive Behavior Questionnaire

As an adult (18 years and older), have you ever

Yes	No	
___	___	1. Punched a wall when angry?
___	___	2. Intentionally broken things when angry?
___	___	3. Hit your partner when angry?
___	___	4. Hit a child out of anger, not because of discipline?
___	___	5. Caused and gotten into a bar fight?
___	___	6. Gotten into fist fights (not in a bar)?
___	___	7. Mistreated an animal when angry?
___	___	8. Killed an animal when angry?
___	___	9. Been charged with assault (not necessarily convicted of it)?
___	___	10. Damaged anyone else's car on purpose?
___	___	11. Damaged the property of others to "get back" at them?
___	___	12. Stolen from anyone because of anger, not need?
___	___	13. Defaced public property (eg, walls, buildings, parks)?
___	___	14. Intentionally ran anyone off the road?
___	___	15. Beat up anyone such that they required medical attention?
___	___	16. Pushed or shoved a partner when angry?
___	___	17. Caused anyone to have an "accident"?
___	___	18. Bullied a partner into sex?
___	___	19. Spit at or on anyone?
___	___	20. Bitten anyone?
___	___	21. Threatened anyone with a weapon?

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“By the foolish Paynter Bayer”—characteristics of the psychopathology of expression in a previously unknown work of the early 18th century by a very probably schizophrenic heraldic painter and his identification

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Abstract

Background: Whether schizophrenia existed before the 19th century is an important issue within the history of psychiatry. Written records or other documents that could identify this psychopathology are extremely rare and must therefore be subjected to meticulous historical and psychopathologic analysis.

Methods: A previously unknown heraldic sheet, with accompanying text, was subjected to historical, heraldic, and psychopathologic analysis. The contemporary inscription “by the mad paynter Bayer” was found on the back of the painting. The phenomenologic analysis emphasized the phenomenology of Jaspers for the formal criteria of a psychosis.

Results: Many of the characteristics as seen typical psychopathologic of presumably schizophrenic psychoses by some authors can be found in the formal features of the work. Moreover, a precise historic and heraldic investigation (blazon) allowed us to assign this previously anonymous work to an artist of the period around 1720 to 1740, Abraham Beurer, and to find his contemporary portrait.

Conclusions: This is one of the earliest works that can be unambiguously assigned to the psychopathology of expression (art brut). The formal features of schizophrenia appear to be remarkably typical, timeless, and stable, although the objective features are strictly historical. The work provides further evidence that there were individual cases of schizophrenia even before the 18th century. The external designation as “mad” provides important additional support for this view.

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1. Introduction

During the last 150 years, the concept of psychosis has been influenced by varying social and intellectual concepts [1]. Thus, the term *madness* did not mean the same during the baroque period, the romantic period, the first half of the 19th century, or the time of Emil Kraepelin.

Heinrichs [2] refers to the “remarkably short recorded history” of schizophrenia. This was corroborated by Hare [3(pp532 and 521)]: “Yet in none of the 18th-century books, so far as my reading goes, is there any such description

[of insanity = schizophrenia].” “It is generally agreed that few if any adequate descriptions of schizophrenia are written before the year 1800.” The two first clear descriptions of schizophrenia were both presented in 1809 in the second editions of the textbooks of Pinel and Haslam, but not in the corresponding first editions of 1798 (Haslam) and 1801 (Pinel).

There has been an interpretation that brief notes in the Ancient Egyptian *Papyrus Ebers* may imply schizophrenia [4], but other reviews have not suggested any connection [5]. *Papyrus Ebers* (found in Luxor in 1873/1974 by Georg Ebers [5]) is an Egyptian medical papyrus dating to circa 1550 BC and is considered the most important medical papyrus of ancient Egypt including the *Book of Hearts*. Nasser [6(p420)] possibly mentioned altered states of consciousness and, perhaps, attention problems, as is expressed in the following phrases of the *Papyrus Ebers*:

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