

Movies and Behavior Among Hospitalized Mentally Disordered Offenders

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Aggression that follows the viewing of televised or filmed violence has been subject to considerable empirical research and controversy.^{1,2} Although pre-adolescent children have been the subjects of many investigations, at least two studies involving juvenile delinquents^{3,4} and one involving prisoners⁵ have shown a positive association among their subjects between the viewing of filmed violence and postviewing aggression as measured by subjective and objective reports.

Johnston and Lundy⁶ studied postviewing incidents by male psychiatric inpatients in a Veterans Administration medical center. They concluded there was no difference in agitation or requests for medication that could be attributed to violent content. Rather, they believed the patients were responding to the change in routine.

Dietz and Rada⁷ previously reported peak frequencies of battery incidents on "movie day" in a maximum security hospital and suggested it would be of interest to determine whether incidents were related to the types of films shown, though their data did not permit such analysis. This report is based on a study of that relationship in the same institution.

Materials and Methods

The maximum security hospital in which this administrative study was conducted serves as the only facility in the state for evaluation, diagnosis, and treatment of highly dangerous, mentally disordered men, and has been described in detail elsewhere.⁷ Most of the patients are between 20 and 30 years old and have histories of violent crimes and mental disorders.

Part of the recreational program for all patients is a series of regularly scheduled, feature-length films. Each year, the film series begins during the first full week of September and runs through the end of May of the following year. The films are shown every Thursday from approximately noon until 3 p.m. in a large auditorium. This single, weekly showing is the only time when virtually all patients are together in one room; all other group activities, such as meals or sporting events, are limited to smaller assemblies. However, the author estimates that at least 95 percent of all patients attend any one film.

The author classified the films as either adventure or nonadventure movies before incident data were collected. The main themes of adventure

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films involved overt physical conflict such as fights, war, armed combat, violent crime, high-speed automobile chases, or confrontation with major natural forces. In contrast, the main emphases of nonadventure films included comedy, singing, satire, or deep psychological character development. The names of the adventure and nonadventure films are listed in Table 1.

Patient behavior is constantly monitored by security officers. The officers are required to describe each known potentially serious incident in writing. The Dietz and Rada criteria were used to classify incident types.⁸ Assaults were observed to be any verbal or nonverbal threats, while physical striking with objects or body parts was considered a battery. Threats or attempts at suicide or self-mutilation were considered parasuicides. Disorderly conduct incidents involved property damage and disruptive behaviors. Assaults and batteries were considered as one type of incident for the purposes of this study.

This study examined unique incidents reported during two periods. The first—July 6 through September 6, 1981—was the control period during which movies were not shown. The second—September 7, 1981, through March 28, 1982—was the test period during which movies were shown. The week of December 21-27, 1981 was excluded because it was the only week

Table 1. Titles of Adventure and Nonadventure Films

Adventure Films

Jeremiah Johnson
The Land that Time Forgot
Raise the Titanic
Outland
The People that Time Forgot
Badlands
The Norseman
Who is Killing the Great Chefs of Europe?
Viva Knieval
Winterhawk
Smokey and the Bandit
California Dreaming

Nonadventure Films

Oh God, Book 2
What's Up, Doc?
The Nude Bomb
Funny Girl
Funny Lady
Coal Miner's Daughter
One on One
A Star is Born
Chapter Two
Little Miss Marker
Private Benjamin
The Life of Brian
Bronco Billy
Close Encounters of the Third Kind
Inside Moves
The Front

that contained two institutionwide gatherings.

Incidents occurring between 3 p.m. Tuesday and noon the following Thursday were recorded as "before" film time, while incidents occurring between 3 p.m. Thursday and noon the following Saturday were recorded as being "after" film time. These 45-hour intervals were selected because they each contained the same proportions of day, evening, and night hours, and allowed "washout" intervals of 75 hours between individual film periods. Incidents occurring during film time were excluded due to the uncertain affects of crowding.

The one-sample runs test of randomness⁹ was used to determine if the film sequence was random (n_1 = number of first-type events in the sequence; n_2 = number of second-type events in the sequence; r = number of distinct runs of both types). The two-tailed Wilcoxon Matched-Pairs Signed-Ranks Test⁹ was used to compare numbers of incidents occurring before and after film times (N = number of nonzero, matched-paired differences; T = smallest of the sums of like-signed ranks). Daily census levels and numbers of incidents, taken from a random sample of 26 days, were compared by the correlation coefficient (r). In all statistical tests, $p < 0.05$ was used as the level for significance.

Results

Twenty-eight films were shown and classified. There were 12 adventure and 16 nonadventure movies. There were 191 assault-battery incidents, 48 parasuicides, and 133 disorderly events. The daily numbers of reported unique incidents ranged from zero to six, while the daily census ranged from 426 to 450. The correlations between incident frequency and institutional census disclosed no significant relationship between individual types of incidents or total incidents and census level, confirming a report that census has at most a modest effect on incident rates per person at this institution.⁷

The test for randomness showed that the sequence of adventure and nonadventure films was arranged randomly ($n_1 = 12$, $n_2 = 16$, $r = 16$, $p > 0.05$). The combined assault-battery incidents showed a statistically significant increase following adventure films ($N = 10$, $T = 5.5$, $p < 0.05$), but no statistically significant changes following nonadventure films ($N = 12$, $T = 35$, $p > 0.05$) or without films ($N = 9$, $T = 11$, $p > 0.05$). The reported unique assault-battery incidents during before and after periods for adventure and non-adventure films, and without films, are shown in Table 2 (next page).

Parasuicide and disorderly incidents showed no statistically significant changes following adventure or nonadventure films, or without films. The reported unique parasuicides during before and after periods for adventure and nonadventure films, and without films, are shown in Table 3. Table 4 displays the reported unique disorderly conduct incidents during before and after intervals for the film types and without films.

Discussion

Reported assault-battery incidents among hospitalized mentally disor-

Table 2. Reported Unique Assault: Battery Incidents Before and After Viewing by Film Type

No Film*		Incidents by Film Type			
Before	After	Adventure†		Nonadventure‡	
		Before	After	Before	After
3	5	5	5	2	1
3	2	1	4	2	1
1	2	3	4	2	3
3	6	2	4	3	5
5	1	2	3	2	2
1	3	2	5	2	1
1	2	2	3	2	3
1	3	2	7	1	3
3	5	2	0	1	1
		2	3	4	2
		0	4	2	3
		2	2	2	2
				3	3
				3	4
				3	0
				3	1

*N=9, T=11, $p>0.05$

†N=10, T=5.5, $p<0.05$

‡N=12, T=35, $p>0.05$

Variables are defined in text.

dered male offenders showed a statistically significant increase following the showing of adventure movies. This is in contrast to the recently published findings of Johnston and Lundy,⁶ although they classified incidents and movies differently than did this author, used different statistical methods, and involved a different type of subjects.

The author acknowledges the criteria used to classify films in this study are somewhat subjective. However, he is inclined to believe the classification yielded a group of adventure films with relatively uniform content. The author also believes this study is otherwise well controlled for variations due to days of the week and hours of the day. There is no reason to believe incidents varied as a function of the season.^{6,7} Nor is there reason to suspect differential reporting of incidents as a function of film type, or other sampling bias such as preselection of the viewing subjects. It can be concluded the changing level of reported postviewing assault-battery incidents is more likely a function of film type than other factors.

These results should, of course, be cautiously interpreted. They do not demonstrate causation. Postviewing behavior is of complex origin and is likely to be an amalgam of imitation, stimulation, viewing context, and past experience.^{1,2,3} Interactions with fantasies^{10,11} and current mental state are undoubtedly important determinants as well. However, the absence of significant changes in certain incident levels after viewing nonadventure films suggests the possibility that a nonaggressive display is better tolerated by these men than a portrayal of aggression. This finding, whatever its explanation, has a therapeutic potential worth further exploration.

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Table 3. Reported Unique Parasuicide Incidents Before and After Viewing by Film Type

No Film*		Incidents by Film Type			
Before	After	Adventure†		Nonadventure‡	
		Before	After	Before	After
0	0	0	0	1	1
1	1	0	0	2	1
1	0	0	1	0	2
1	1	1	1	0	0
1	1	1	1	1	1
1	1	0	2	0	1
1	1	0	0	0	1
0	0	1	1	0	0
0	2	0	2	1	0
		0	0	0	1
		1	2	1	1
		0	0	1	1
				1	0
				0	1
				0	1
				1	0

*N=2, T=1, p>0.05

†N=4, T=0, p>0.05

‡N=10, T=20, p>0.05

Variables are defined in text.

Table 4. Reported Unique Disorderly Conduct Incidents Before and After Viewing by Film Type

No Film*		Incidents by Film Type			
Before	After	Adventure†		Nonadventure‡	
		Before	After	Before	After
2	0	1	2	1	2
2	2	2	1	1	3
3	3	5	3	3	4
0	1	0	0	1	3
2	3	0	1	0	5
0	3	1	7	1	1
1	1	1	3	1	3
1	3	2	3	0	0
1	2	5	3	2	2
		1	3	1	1
		1	0	2	1
		3	2	3	4
				0	1
				0	0
				3	1
				5	2

*N=6, T=6.5, p>0.05

†N=11, T=27.5, p>0.05

‡N=11, T=20.5, p>0.05

Variables are defined in text.

References

1. Eysenck HJ, Nias DKB: Sex, Violence, and the Media. New York, Harper and Row, 1978
2. Comstock G, et al: Television and Human Behavior. New York, Columbia University Press, 1978
3. Parke RD, et al: Some effects of violent and nonviolent movies on the behavior of juvenile delinquents, in *Advances in Experimental Social Psychology*, Vol. 10. Ed. by Berkowitz L. New York, Academic Press, 1977, pp. 135-72
4. Leyens JP, et al: Effects of movie violence on aggression in a field setting as a function of group dominance and cohesion. *J Personality and Social Psychology* 32:346-60, 1975
5. Wolfe BM, Baron RA: Laboratory aggression related to aggression in naturalistic social situations: Effects of an aggressive model on the behavior of college student and prisoner observers. *Psychonomic Science* 24:193-94, 1971
6. Johnston R, Lundy BW: Disruptive behavior by hospitalized patients following movie viewing. *Hospital and Community Psychiatry* 33:1015-17, 1982
7. Dietz PE, Rada RT: Battery incidents and batterers in a maximum security hospital. *Archives of General Psychiatry* 39:31-34, 1982
8. Dietz PE, Rada RT: Interpersonal violence in forensic facilities, in *Assaults in Psychiatric Facilities*. Ed. by Lion JK, Reid WH. New York, Grune and Stratton, in press
9. Siegel S: *Nonparametric Statistics for the Behavioral Sciences*. New York, McGraw-Hill, 1956
10. Feshbach S: The role of fantasy in the response to television. *J Social Issues* 32:71-85, 1976
11. Fenigstein A: Does aggression cause a preference for viewing media violence? *J Personality and Social Psychology* 37:2307-17, 1979 □