

Portrayals of Schizophrenia by Entertainment Media: A Content Analysis of Contemporary Movies

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Objective: Critics of entertainment media have indicated that cinematic depictions of schizophrenia are stereotypic and characterized by misinformation about symptoms, causes, and treatment. The pervasiveness and nature of misinformation are difficult to ascertain because of the lack of empirically based studies of movies portraying schizophrenia. This study analyzed portrayals of schizophrenia in contemporary movies to ascertain prevalence of stereotypes and misinformation about schizophrenia. **Methods:** English-language movies featuring at least one main character with schizophrenia that were released for showing in theaters between 1990 and 2010 were analyzed for depictions of schizophrenia. Two researchers independently rated each character with a checklist that assessed demographic characteristics, symptoms and stereotypes, causation, and treatment. **Results:** Forty-two characters from 41 movies were identified, a majority of whom were male and Caucasian. Most characters displayed positive symptoms of schizophrenia. Delusions were featured most frequently, followed by auditory and visual hallucinations. A majority of characters displayed violent behavior toward themselves or others, and nearly one-third of violent characters engaged in homicidal behavior. About one-fourth of characters committed suicide. Causation of schizophrenia was infrequently noted, although about one-fourth of movies implied that a traumatic life event was significant in causation. Of movies alluding to or showing treatment, psychotropic medications were most commonly portrayed. **Conclusions:** The finding that misinformation and negative portrayals of schizophrenia in contemporary movies are common underscores the importance of determining how viewers interpret media messages and how these interpretations inform attitudes and beliefs both of the general public and of people with schizophrenia. (*Psychiatric Services* 63: 655–659, 2012; doi: 10.1176/appi.ps.201100371)

Entertainment media are often cited as an important source of information about mental illness. These media, however, have been widely criticized for their negatively stereotypic and inaccurate depictions of mental illness (1,2). Movies, in particular, have been faulted for misrepresenting mental illness and perpetuating stereotypes (3).

One of the more prevalent stereotypes found in movies is the depiction of a character with a serious mental illness as dangerous and violent (4). Over two decades ago, Hyler and coauthors (5) identified the “homicidal maniac” as one of Hollywood’s more pejorative stereotypes about people with mental illness. More contemporary movies have continued to

conflate violent behavior with mental illness. As noted by Byrne (6) and Wedding and Niemiec (7), the psychiatric patient turned homicidal maniac is an ever-present feature of contemporary “slasher” or “psycho killer” films.

Negative stereotypic portrayals of mental illness appear to be particularly characteristic of movies portraying more severe psychopathologies, such as schizophrenia. Media analysts (8,9) have criticized movies for associating schizophrenia with unpredictable and often violent behaviors. Although one review of epidemiological studies (10) found that people with schizophrenia were more violent than the general population, much of this violence appeared to be attributable to a small subgroup of people with comorbid substance abuse and a history of violence (1,11). Indeed, people with serious mental illnesses were more likely to be the victims of violent acts than to be the perpetrators (12). There is substantial evidence that schizophrenia is associated with high rates of violence toward self. Rates of suicide completion were estimated to be ten to 16 times higher among people with schizophrenia than among the general population (13,14). Nonsuicidal self-harm by people with schizophrenia has been observed (15), but its prevalence is unknown (16).

Critics have faulted movies for their emphasis on the grossly disorganized and bizarre behaviors of characters with schizophrenia, many of whom are shown experiencing vivid visual hallucinations (4,16). In reality, although some schizophrenia symptoms may be bizarre and grossly disorganized, the negative symptoms

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of schizophrenia, such as affective flattening and avolition, are more prominent, and auditory hallucinations are far more prevalent than visual hallucinations (13). Movies may also perpetuate the misconception that schizophrenia is linked to genius or extraordinary creative ability (17). Yet the association of genius with schizophrenia is considered largely to be a myth, given that the diminished cognitive abilities of many people with schizophrenia preclude the ability to sustain the focused attention necessary for creative achievement (16).

The portrayals of causation and treatments of schizophrenia by movies are also considered to be inaccurate or misrepresented. According to movie critics, movies have falsely promoted the premise that traumatic life events, such as dysfunctional parenting, cause schizophrenia (18) and that schizophrenia can be cured by the special empathetic understanding of a loving helper (7,19,20). Movies have been criticized for paying negligible attention to psychopharmacological treatments for mental illness (19), while featuring other treatments, such as electroconvulsive therapy (21) and catharsis (19), as commonplace. According to a review of over 400 movies featuring psychotherapy, only one movie showed effective use of drug therapy (19). In another review, which included 106 movies portraying therapists, only a few movies showed psychopharmacology as a treatment modality (22).

These cinematic depictions, however, are not supported by research. Considerable evidence indicates a substantial biological basis for schizophrenia (16) and use of antipsychotic medications—not electroconvulsive therapy or catharsis—as first-line treatment of schizophrenia symptoms. Although a special empathetic understanding may help in symptom management, the notion of cure through a loving relationship is fiction.

The prevalence of movie misrepresentations of schizophrenia is difficult to ascertain because information about portrayals of schizophrenia in movies has been derived from either descriptive studies of a limited set of exemplar movies (5) or single case reports with an author's analysis of one

or two movies (21,23). Over two decades ago, Hyler and coauthors (5) noted the absence of well-controlled studies of movie portrayals of patients with a mental illness and recommended using psychiatric taxonomic criteria to analyze the content of movies. To date, these studies still do not exist, and, despite the considerable criticism of movie portrayals of severe mental illness, there have been no published empirical analyses of movie portrayals of schizophrenia to verify these criticisms. Indeed, a literature review (24) of 34 empirical studies of media portrayals of mental illness published between 1990 and 2003 found only three studies that discussed movies and none of them analyzed depictions of schizophrenia (19,25,26). The purpose of this study was to provide a content analysis of the portrayal of schizophrenia in contemporary movies to ascertain the prevalence of stereotypes and misinformation about schizophrenia.

Methods

Sample

English-language commercial movies that featured at least one character with schizophrenia and that were released for theatrical showing between 1990 and 2010 were viewed in their entirety. Sources for locating movies were Internet and print movie databases that allowed a search by topic or keyword. They included the Internet Movie Database, Turner Classic Movies, Yahoo! Movies, Netflix, Time Out Film Guide, VideoHound Movie Guide, and numerous other movie anthologies available online or in print. Keyword search terms were “schizophrenia,” “mental illness” or “mental problems,” “psychiatric illness” or “psychiatric problems,” “psychological illness” or “psychological problems,” “psychosis,” “insanity,” “crazy,” “hallucinations,” and “delusions” or “delusional.”

Movies available for rent or purchase were viewed if the database's description referred to a character or a plot characterized by any of these terms. Movies were included in the content analysis if a main character's unusual behavior or affect was attributed to schizophrenia or if a main character met *DSM-IV-TR* (13) crite-

ria for diagnosis of schizophrenia by displaying at least two symptoms of schizophrenia (or only one if the symptom was a delusion judged as bizarre) and by showing significant distress or impairment in psychosocial functioning. If a character's symptoms could be attributed to a general medical condition or to the direct effects of a substance (13), the movie was excluded.

Coding

A coding checklist of all variables was devised. Each movie character meeting selection criteria for schizophrenia was coded on each variable. The variables are described below, by category.

Demographic characteristics. Gender, race or ethnicity, and estimates of age range and socioeconomic status were coded for each character. Estimate of socioeconomic status was based on the character's predominant place of residence (27) and was categorized as low (included living on the street), middle, high, or undetermined (for example, living in an inpatient setting or halfway house). In movies in which the character's residential circumstances changed, the predominant residence was coded.

Symptoms and stereotypes. Positive symptoms (bizarre delusions, hallucinations, disorganized speech, and disorganized behavior) and negative symptoms (alogia, avolition, and flat affect) consistent with *DSM-IV-TR* diagnostic criteria for schizophrenia were coded (13). Unpredictable behaviors and dangerous or violent (non-homicidal and homicidal) behaviors occurring in the active or the residual phase of schizophrenia were coded. Unpredictable behavior was defined as behavior that was erratic and without justification or that appeared socially unjustified (28). Dangerous or violent behavior was defined as intent to harm oneself or others. Self-mutilation, suicide attempts, or any other behavior that had the potential of harming oneself was coded as violence toward self. Violence toward others was coded as nonhomicidal or homicidal; attempted murder was coded as homicidal. A character who displayed exceptional skills or talents during active or residual phases of schizophrenia was coded as a genius.

Causation. Causation of schizophrenia, if directly stated or implied, was coded as primarily environmental, primarily biological, or a combination of the two. Examples of environmental causes are traumatic events or dysfunctional family interactions. If a cause was specified—such as genetics or schizophrenogenic parent—it was noted on the coding sheet.

Treatment. Treatment was coded as primarily psychological (for example, psychotherapy), biological (for example, medications), or a combination. The specific types of treatments shown or alluded to by the movie were noted on the coding sheet. Settings for treatment were coded as inpatient, outpatient, combination of inpatient and outpatient, or other.

For the purpose of interrater reliability, all movies were also independently coded by a graduate student trained in the use of the coding scheme. Disagreements in coding were discussed and resolved. The average percentage of agreement for the coded variables was 89%. Cohen's kappa for agreement between the two raters ranged from .78 (flat affect) to perfect agreement (genius and socioeconomic status).

Results

Over 70 movies were viewed, and 41 met inclusion criteria. A total of 42 characters met selection criteria for schizophrenia. [A table listing the movies and characters is available online as a data supplement to this article.] A majority of characters were male ($N=33$, 79%) and Caucasian ($N=40$, 95%). Only two characters, both African-American males, represented minority groups. Estimated age ranged from preteen to 70 years old, and slightly less than half ($N=18$, 43%) of the characters were in their twenties. Almost half ($N=19$, 45%) of the characters were judged to be of below average or low socioeconomic status, and ten (24%) were judged to be of high socioeconomic status.

A majority of characters displayed positive symptoms, including bizarre delusions ($N=28$, 67%), auditory hallucinations ($N=26$, 62%), visual hallucinations ($N=22$, 52%), and disorganized thought or speech ($N=9$, 21%). Negative symptoms were less fre-

quently depicted. Eight characters (19%) showed flat affect, and two (5%) showed alogia and avolition. A majority ($N=35$, 83%) of the characters displayed dangerous or violent behaviors toward others, and nearly one-third ($N=13$, 31%) of violent individuals engaged in homicidal behavior. A majority of the characters engaged in unpredictable behavior ($N=30$, 71%) and displayed some form of self-harm, ranging from self-mutilation to suicide ($N=29$, 69%). Ten (24%) characters committed suicide. Seven (17%) characters were portrayed as gifted or as having a special talent, usually in music, science, mathematics, or art. Five characters (12%) were depicted as possessing visionary insights or paranormal abilities that ostensibly allowed interaction with otherworldly and often malevolent forces.

A majority ($N=31$, 74%) of movies did not identify any causal factors associated with schizophrenia, although about one-fourth ($N=10$, 24%) stated or implied that traumatic events were responsible for a character's schizophrenia. Psychotropic medications were depicted or alluded to by slightly over half ($N=23$, 55%) of the movies, but other therapeutic modalities, such as psychotherapy or group therapy, were infrequently depicted. The myth that love can cure schizophrenia was found in nearly one-fourth ($N=10$, 24%) of the movies.

Discussion

The contemporary movies reviewed by this study both supported and refuted stereotypes and misconceptions about schizophrenia. Notable among the stereotypes supported was the association of schizophrenia and unpredictable behavior and violence. Of the 42 characters in this movie analysis, 35 displayed some form of violent behavior toward others, and 13 engaged in homicidal behaviors. Some movie characters with schizophrenia were depicted as having unusual experiences with otherworldly phenomena, an unexpected finding. The association of schizophrenia with the paranormal may represent a newly identified stereotype in contemporary movies—"schizophrenia as possessed."

Several inaccurate characteriza-

tions of schizophrenia in movies were found. The movies emphasized positive symptoms of schizophrenia and featured visual hallucinations as commonplace despite the fact that negative symptoms of schizophrenia are more common. In addition, a majority of characters engaged in self-harm, and 24% committed suicide, a misleading characterization given that suicide rates among individuals with schizophrenia are estimated to range from 10% to 16%. Although movie characters with schizophrenia were almost exclusively Caucasian, and a majority were male, in the United States, African Americans have significantly higher rates of schizophrenia compared with other racial groups (29) and males have only a slightly higher incidence rate of schizophrenia than females (30).

Contemporary movies were fairly accurate in some characterizations of schizophrenia. First, almost half of movie characters were judged to be of low socioeconomic status, consistent with epidemiological data demonstrating the inverse relationship between socioeconomic status and schizophrenia (29). In addition, the stereotype of people with schizophrenia as having superior intellect or creativity had limited support in movies, although a few characters had genius abilities. The myths that traumatic events cause schizophrenia and that love cures schizophrenia were found in some movies but not as frequently as has been suggested (7,19,20). Treatments such as electroconvulsive therapy and cathartic cures, which have been purported to be common in movies featuring serious mental illness (19,21), were infrequently depicted.

In 2001, Gabbard (31) noted that the "usefulness of the role of psychotherapy in the narrative of the film may partially explain why the psychopharmacologic revolution in psychiatry never materialized on the movie screen." In contemporary movies portraying schizophrenia, however, psychopharmacology is very much in evidence. Over half of the movies that alluded to or depicted treatment referred to the use of medications, a finding that may reflect a greater awareness by filmmakers of

current psychiatric treatment for schizophrenia.

Although all of the movies contained misinformation about schizophrenia, in a few movies the misinformation was judged to be inconsequential and did not detract from an overall accurate and compelling portrayal of schizophrenia. These movies provided a realistic and sympathetic representation of the numerous challenges encountered by people with schizophrenia, such as societal stigma (*The Soloist*), disruption of family and other relationships (*Canvas*, *Oil on Water*, and *Some Voices*), and day-to-day struggles to cope with symptoms (*Angel Baby*; *Clean, Shaven*; and *Revolution* #9).

That the general public holds misinformed beliefs and negative attitudes about serious mental illness has been well documented (32–34). Schizophrenia in particular engenders intense negative attitudes (35), which appear to be based on fears of dangerousness and violence (36). Entertainment media are often cited as contributing to the formation and reinforcement of misinformation and negative attitudes about mental illness (37,38). Popular movies are considered especially powerful influences on attitude formation about mental illness (3,39). Through the cinematic merging of emotionally arousing visual imagery and exciting and often intense dramatic narratives, movies allow viewers to identify with and connect emotionally with characters displaying mental disorders (40).

In this study, the finding that contemporary movies provide misinformation and negative representations of schizophrenia paralleled the negative depictions of mental illness by other media, such as television and newspapers (24). Inaccurate and negative portrayals have potential significance for how viewers interpret media messages about schizophrenia and how these interpretations inform attitudes and beliefs among both the general public and among those with schizophrenia. Of notable concern is the finding that the “homicidal manic” stereotype associated with schizophrenia is prevalent in contemporary movies. The cinematic association of schizophrenia with behavior that is violent, unpredictable, and seemingly

without justification potentially fuels an “us versus them” mentality that conveys the message that people with schizophrenia are different and should be feared and avoided.

Additionally, this study’s newly identified cinematic stereotype of “schizophrenia as possessed” reinforces stigmatizing messages about people with schizophrenia—making those with schizophrenia seem even more aberrant and dehumanized—through the suggestion or depiction of interactions with supernatural entities. To those who struggle with severe mental illness, the pejorative stereotypes found in movies about schizophrenia have detrimental consequences. People with schizophrenia have reported feeling hurt and offended by media messages (41) and have anticipated discrimination resulting from the portrayal of mental illness by the media (42). Media messages associating violence with severe mental illness may also contribute to stigmatization and the consequences of social rejection, social distancing, and discrimination that are often experienced by those with a severe mental illness (33,34,43).

The demographic profile of characters with schizophrenia in movies provides another source of misinformation. The cinematic character with schizophrenia typically is Caucasian and male, characteristics that are counter to actual incidence data. Rates of schizophrenia are higher among African Americans than Caucasians (30) and only slightly higher among males than females (31). The impact of underrepresentation of members of racial and ethnic minority groups in movies about schizophrenia on members of those groups is unknown. However, such underrepresentation raises interesting questions about whether the paucity of non-Caucasian movie characters might affect help seeking and treatment decisions among members of minority racial and ethnic groups with schizophrenia and even contribute to greater endorsement of stigma by members of these groups toward persons with mental illness (44).

This study had some challenges and limitations. One challenge concerned the decision to include movies that

had only limited runs in theaters or that were released directly to video. However, given the popularity of DVD subscription services and streaming video, these movies may actually be reaching a wide audience. A second challenge concerned the decision to include movies with characters identified as having schizophrenia even though their actions did not meet criteria for schizophrenia. The movies *Me, Myself & Irene* and *Donnie Darko* provide examples of characters who are labeled as having schizophrenia but who evince behaviors symptomatic of other disorders (dissociative identity disorder and delusional disorder, respectively). These movies were included in the analysis because by linking unusual behaviors with the label of schizophrenia, they most likely would lead viewers without disconfirming information to believe such behaviors were indicative of schizophrenia.

One limitation of this study concerned the inclusion of only commercial movies made for theatrical release. The exclusion of other visual media featuring characters with schizophrenia may have affected the generalizability of the findings. To provide a more comprehensive assessment of the portrayal of schizophrenia by the visual media, future research should expand the scope of media to include documentaries and movies made for television.

Conclusions

This study appears to be the first to provide an empirically based content analysis of the portrayal of schizophrenia in contemporary movies. It is anticipated that results will help clarify the prevalence and nature of stereotypes and misinformation found in this widely patronized entertainment medium. An important question concerns the interaction of media-informed knowledge and attitudes about schizophrenia and other severe mental illnesses and stigma and discrimination toward those with a mental illness. Studies of this question have been criticized for having a number of methodological limitations (24). Critics have asserted that the linkage between media messages about mental illness and formation of stigmatiz-

ing attitudes has not been empirically demonstrated (24).

Nevertheless, clearly there is a need to provide accurate information about mental illness to counter the negative messages found in mass media. A few studies have found visual media to be effective in correcting misinformation about schizophrenia (40,45) and effective in increasing empathy toward persons with schizophrenia (43). Future efforts extending this line of research would contribute to the discourse on the optimal uses of entertainment media to correct misinformation about schizophrenia and to promote an informed understanding of those with schizophrenia and other mental illnesses.

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