



Brief Communication

Teaching diagnostic approach to a patient through cinema

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ABSTRACT

Films are produced with the aim of entertaining people, but recently there has been increasing use of films to educate medical trainees about various disorders, symptoms of these disorders, patient–therapist interactions, and various other medical and psychiatric issues. Discussions in academic circles have moved from criticism of negative portrayals of mental illness in earlier films to their use in teaching sessions. Films can be used either in full length or clip format to conduct training modules. Use of the film *Stigmata* to train residents about diagnostic dilemmas and taking a diagnostic approach to patients is discussed.

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1. Introduction

A large number of films have dealt with various topics related to medicine, psychiatry, and other subjects. Recently, use of films in teaching in medical institutions has increased, exploiting their educational as well as entertainment value. Establishment of a psychiatry movie club for such teaching sessions has been discussed by Kalra [1]. Either the films can be used in their full-length versions, as in movie clubs, or short clips portraying the required symptom or aspects of the intended learning material can be clubbed together in single seminars or lectures as in cinemeducation sessions [2]. This article focuses on the use of the film *Stigmata*¹ in a psychiatry movie club to teach trainees the diagnostic approach to a patient. *Stigmata* is a Christian religious term that refers to the spontaneous appearance of wounds corresponding to the wounds on Christ's body resulting from his crucifixion. In the medical field, this refers to psychogenic purpura, also known as painful bruising syndrome, Gardner–Diamond syndrome, and autoerythrocyte sensitization [3].

2. *Stigmata*: The film

Stigmata (1999) is a film about Frankie Paige (Patricia Arquette), who manifests stigmata (or purpura) and certain changes in her

personality. Her case is being investigated by a Vatican priest and scientist, Father Andrew Kiernan (Gabriel Byrne). The film is a thriller highlighting anti-Church politics and an interesting interface of faith, religion, medicine, and psychiatry, which makes it an interesting choice for use in training students in the diagnostic approach to a patient.

As the film starts, Father Andrew is investigating bleeding from a statue of Mother Mary in a church and then moves on to handle the case of Frankie Paige who, incidentally around the same time, begins to show bleeding from wounds similar to Christ's crucifixion wounds. Per Father Andrew, such stigmata are seen only in deeply devout people, and hence their appearance in Frankie, who is an atheist, is totally beyond explanation and is of no interest to the Church. However, a closer look at the type of wounds and a change in Frankie's personality including her use of a certain *Aramaic* language that was spoken by Jesus make the case interesting for him. During his investigation, he comes across issues that the girl and the Church at large are facing.

Throughout the film, a number of clips portray the symptomatology of Frankie and raise diagnostic dilemmas that can be used in a psychiatry movie club or cinemeducation session to discuss the diagnostic approach to such patients (Table 1). The film, however, is better used in its full-length version because of certain subtle scenes and hints at specific diagnoses as discussed further below.

3. Diagnostic approach

Stigmata is an ideal film that can be used to discuss the diagnostic approach to patients with a history of seizures who present to a

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¹ *Stigmata*. Release year: 1999. Language: English. Director: Rupert Wainwright. Actors: Patricia Arquette, Gabriel Byrne, Jonathan Pryce.

Table 1
Clips from Stigmata to use in training program.

1. 00:16:00–00:17:56: Frankie has her first seizure-like episode with bleeding from the wrists in the bathtub.
2. 00:19:23–00:20:21: The female doctor sutures Frankie's wounds in the hospital and points out that the wounds appear self-inflicted.
3. 00:24:05–00:26:35: Frankie sees a lady on the road dropping a child and running amok amid the traffic, risking her life.
4. 00:29:24–00:32:26: The doctor tells Frankie about the possibility of a diagnosis of epilepsy.
5. 00:35:25–00:37:05: Frankie says to Father Andrew that she was expecting him. Probably this is an indication of *déjà-vu*.
6. 00:42:28–00:46:36: Frankie writes something on the car and speaks in a different accent and language for the first time.
7. 00:52:45–00:55:04: Frankie writes on her apartment wall in Aramaic, the language used by Jesus in his times. This symptom may point to hypergraphia. In this clip, there is a definite change in the way Frankie walks, distinct from her own way, possibly indicating possession by a different personality.
8. 00:55:05–00:56:07: Frankie starts crying and questioning why her heart is breaking and what is making her so sad. She also smells flowers in the room when there are none nearby. This clip probably urges the viewer to assess the patient for depressive features that are often comorbid with epilepsy and also hints toward olfactory hallucinations.
9. 01:01:22–01:02:04: Frankie has another seizure-like episode at the flower shop. The episode looks like a generalized tonic-clonic seizure.
10. 01:08:25–01:12:13: Frankie has another episode where she hits Andrew, speaks in a different tone, and to slit her wrists multiple times. Although not direct, this clip may point to borderline traits in Frankie such as fear of abandonment by Andrew, a feeling of emptiness, and a need for intimacy with Father Andrew, whose refusal causes her to become irritated and assaultive and slit her wrists.

consultation–liaison psychiatrist, usually to rule out conversion disorder. Various differential diagnoses can be considered in the lead character of this film:

3.1. *Nonepileptic attack disorder*

Although Frankie's symptoms appear to be generalized tonic-clonic seizures in some clips, it is important to rule out conversion disorder, especially when her tests fail to reveal anything (clip 4 in Table 1). There are facts that help rule out conversion disorder: Most of her seizures were spontaneous and were not induced. She had more specific seizure types, some of which did occur without witnesses or at night. Most of them were abrupt in onset and lasted only a short time. During most of the episodes she made a single vocalization, usually at the onset. Further she never avoided noxious stimuli during any of her seizures. Although Frankie did not have incontinence, scenes with water dripping in bowls, on the floor, and so on occur frequently throughout the film and could be interpreted as a cinematic representation of problems with fluid intake or output, pointing toward urinary incontinence. Similarly, one of the clips shows Frankie bleeding from mouth, which could indicate a tongue bite. Even in the postictal phase, she could not remember the ictal events at all. One indicator of the possibility of pseudoseizures, however, is her pelvic thrusts, especially in the scene where Frankie has seizures at a floral shop (clip 9 in Table 1).

3.2. *Malingering*

Malingering, a diagnosis of exclusion, can easily be ruled out in Frankie, as there is no evident secondary gain throughout the plot and none of the seizures seem to be under voluntary control. Frankie's deficits seem to be maintained over time, and she seems to cooperate on attempts by the doctors to investigate her disorder.

3.3. *Complex partial seizures with Gastaut–Geshwind syndrome*

Complex partial seizures (CPS) present with protean manifestations with some of the most varied and complex auras of all epilepsies. Some of the auras may include: *déjà-vu*, a subtype of which (*déjà senti*, “already felt”) appears to be conveyed in clip 5; visual hallucinations as CPS aura can consist of complex scenes, faces, and visions, all of which Frankie experiences along with olfactory hallucinations; her episodic behavioral attacks such as running amok in traffic could be interpreted as automatisms, and complex automatisms have been reported in epilepsy [4]. Gastaut–Geshwind syndrome is a group of symptoms observed in a subset of patients with complex partial seizures, where the patients manifest certain personality changes [5]. Frankie does manifest a change in her personality that the viewer is able to observe as the film progresses. She becomes more serious and shows a definite shift from being an outgoing, carefree woman at the beginning of the

film to a more serious woman who has lost her carefree attitude. She develops a heightened sense of the significance of things concerning God, religion, and faith, which suddenly become important in her life. Despite being an atheist, she develops an interest in religious issues as she experiences her illness. Her excessive writing and scribbling in certain scenes (clips 6 and 7 in Table 1) point to the symptom of hypergraphia in such patients. These facts favor the possibility that Frankie has complex partial seizures with Gastaut–Geshwind syndrome.

3.4. *Schizophrenia*

This diagnosis comes to mind because of an overlap between the two conditions [6] as the patient seems to manifest some psychotic features such as hallucinations; however, when one looks closely at the criteria for schizophrenia in the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition, Text Revision (DSM-IV-TR), things become clearer and schizophrenia can be ruled out. Although at different points in the film Frankie has hallucinations, disorganized speech, and even socio-occupational dysfunction (clip 8 in Table 1), she does use drugs such as alcohol, and therefore it is more likely that she has a mood disorder, especially depression. Moreover it is difficult to comment on the duration of the disorder. Schizophrenia and temporal lobe epilepsy seem to share many psychopathological phenomena; the episodic nature of Frankie's attacks, especially the fleeting hallucinations that are difficult to recall, impairment of consciousness, and full interepisode recovery, point to a diagnosis of temporal lobe epilepsy rather than schizophrenia. Such difficult cases have been reported in the literature [7] and definitely pose difficulties for clinicians.

3.5. *Psychosis Not Otherwise Specified*

Psychosis Not Otherwise Specified is another category that can be used if there is inadequate information about psychotic symptomatology to meet the criteria for a specific psychotic disorder. Because of the inability to determine if Frankie's psychotic disorder is primary, is the result of a general medical condition, or is substance induced, this diagnosis is a likely possibility.

3.6. *Dissociative identity disorder*

Frankie does seem to have two distinct identities or personality states, each with its own pattern of perceiving and thinking about the self and environment. These two identities recurrently take control of Frankie's behavior with subsequent inability to recall information about the events during the episode. However, again, ruling out the direct effects of a substance and general medical condition, especially complex partial seizures, is difficult and hence this diagnosis cannot be completely ruled out, but seems probable.

3.7. Psychogenic purpura

Psychogenic purpura is associated with painful bruising and purpura with a high female preponderance. Most lesions are seen on the extremities and abdomen [8]. Frankie's lesions initially appear on her wrists and later on her back and forehead. Although lesions on the back and forehead are rare [8], such lesions have been reported in the literature [9,10]. As Frankie's test results were normal according to the doctor (clip 4 in Table 1), her bruises can be interpreted against the backdrop of a normal coagulation profile, which is the usual finding in cases of psychogenic purpura [11]. Some psychological problems associated with psychogenic purpura include depression, anxiety, difficulties in handling aggression, and hostility [12], some of which Frankie appears to manifest throughout the film. Even rare psychiatric disorders like dissociative identity disorder may sometimes present with psychogenic purpura [13], and Frankie has manifested some dissociative symptoms as discussed earlier.

In Frankie, the diagnosis of epilepsy (CPS with Gastaut–Geshwind syndrome) takes precedence as these seizures not only manifest as classic “motor convulsions,” but may also manifest with complex abnormalities of behavior and other subjective experiences. The diagnosis of epilepsy is not always straightforward and may be frequently misdiagnosed [14]. Though nonepileptic psychogenic seizures can be ruled out in our case, there is always the chance that it may be comorbid with epileptic seizures [15]. Psychosis Not Otherwise Specified and dissociative identity disorder seem to be other differentials in this case. In addition, Frankie also has psychogenic purpura and needs to be assessed for depression, the presence of which is a possibility as seen in clip 8; it is interesting to note that mood disorders are a frequent comorbidity in both psychogenic purpura [12] and epilepsy [16,17] and are a frequent reason for worry if not adequately treated. Frankie also shows some borderline personality traits (clip 10 in Table 1).

3.8. Pitfalls

Use of films for teaching is not without its pitfalls, and surely this film is no exception. The patient's psychosocial history, especially her family and childhood history, is not covered in the film; however, this is not expected in films, which are usually time limited. Moreover, this situation is similar to that in the consultation room of a psychiatrist who has to make do with incomplete histories at times [18]. Although the investigation of the patient portrayed in the film points toward a diagnosis of epilepsy, this dilemma is not solved in the climax. Bhugra observes that diagnoses may not always be clear in film plots and hence differentials are to be considered [19]. This film appropriately portrays the symptomatology of the patient; however, it fails to show any attempt to seek treatment on her part; she seems to want to get rid of the problem through other means. This may have a negative effect on viewers and affect their treatment-seeking behavior. It is also wise to be careful when using this film as it may be considered as insulting certain religious beliefs. It is advisable to consider the offense that could be taken in some Christian cultures viewing a horror film of this nature.

4. Conclusion

The film *Stigmata* can be used to train students from various disciplines, including but not limited to general psychiatry, consultation–liaison psychiatry, neurology, family medicine, and dermatology. It can be used either in full-length or clip format to discuss diagnostic dilemmas and diagnostic approach to patients presenting with difficult clinical syndromes. Such use of films entertains trainees as much as teachers and can be an interesting way to discuss and teach various aspects of disorders.

Conflict of interest statement

There are none.

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