Review Article :

Motor disorder: A psychological perspective

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ABSTRACT:

From the point of view of the 'psychic reflex arc' all psychiatric events merge into motor phenomena, which assist the final inner elaboration of stimuli into external world. We can therefore examine the many, often grotesque, movements of mental patients from two points of view. Either we try to acquaint ourselves with the disturbances of motor mechanism itself, which can show disturbances independent of any psychiatric anomaly and this is the approach adopted by neurology. Or we try to know the abnormal psychic life and the patient's volitional awareness, which these conspicuous movements exhibit. In so far as we know the meaningful connections, the movement becomes behavior we understand, for instance the delight in activity shown by the manic patients in their exuberance or the increased urge to move shown by the patients who are desperately anxious. Somewhat between neurological phenomena and the psychological phenomena lie the psychotic motor phenomena which we register without being able to comprehend them satisfactorily one way or the other. They can be explained psychologically. Some of the disorders various culturally. Motor disorder can be assessed and managed psychologically

Key words: motor disorder ,assessment, management

INTRODUCTION:

Motor behavior is normally finely coordinated, purposeful, and adaptive, and necessary activities are usually carried out efficiently. Abnormal movements have been recognized as aspects of behavioral illness for millennia, and all severe psychiatric conditions are associated with changes in motor functioning. In so far as we know the meaningful connections, the movement becomes behavior we understand, for instance the delight in activity shown by the manic patients in their exuberance or the increased urge to move shown by the patients who are desperately anxious. Somewhat between neurological phenomena and the psychological phenomena lie the psychotic motor phenomena which we register without being able to comprehend them satisfactorily one way or the other.

MOTOR DISORDER, IS IT NEUROGENIC OR PSYCHOGENIC?

Much of the terminology used to describe motor disorder is for several reasons unsatisfactory because of the ancient but still persistent mind brain dichotomy. With advances in neuroscience and neuropsychiatry it is become increasingly difficult to differentiate between what were an earlier, simpler time called abnormal movement due to organic brain disorder and those due to psychiatric or psychogenic disorder. Fahn et al (1998) define psychogenic movement disorders as abnormal movements that do not result from a known organic cause but are caused by psychological condition. While that may be true, it is not a particularly helpful definition. Because what is the known organic cause for essential tremors, spasmodic dystonia, torsion dystonia and so on? They are universally thought to be organic disorder but are still without any demonstrable neuroimaging, neuropathological, or neurochemical abnormalities. Stress makes most movement disorder temporarily worse and in sleep, almost all of them disappear. So where does psychology end and neurology begin? (Joseph & Young, 1999).

CLINICAL ASSESSMENT OF MOTOR DISORDER

In psychiatric disturbances, motor abnormalities can involve generalized over activity or under activity or manifest in a wide range of specific disorders of movement. General appearance and behavior is more informative than any available tool and thus any assessment of motor disorder should start as soon as the patient walks towards the examiner. Look for level of arousal and attention, hygiene, grooming and dress, activity level, spontaneity or imitation of act, symbolic movements like gestures, grimaces or any tics or mannerisms, swing of arms and dyskinetic movements if any. Any real or hallucinatory perceptions seem to modify behavior of patient. If inactive is he resisting movement or maintaining postures or can be re-postured abnormally. Is he obeying command, is he over-compliant or he does exact opposite of instruction. Is there any expressive movement over face or any signs of emotional responsiveness? Look for rigidity of limbs. Take note of

frequency, appropriateness and constancy of acts. Assessment and demonstration of specific disorders of movement will be dealt in paragraphs to follow. Screening and rating scales can be used variously.

PSYCHOLOGICAL EXPLANATIONS OF MOTOR DIORDERS

1. **Conversion disorder:** A conversion disorder is characterized by the loss of a bodily function, for example blindness, paralysis, or the inability to speak, the loss of physical function being involuntary. Whilst "hysterical" blindness, paralysis, anesthesia, dysphagia, and gait disturbance have been described for many years, the patient confronts an acute stressor that creates a psychic conflict, and the physical symptom(s) serve as the resolution for the conflict. The patient may repress the stressor or be unaware of its impact. The conversion symptoms bind the individual's anxiety by preventing activities that may lead to expression of repressed impulses by keeping conflict out of conscious awareness (primary gain). It can even be explained on grounds of legitimization of the sick role as a way in which the individual takes the opportunity to communicate the distress in socially acceptable device in form of physical symptoms (secondary gain) (Joesph & Young, 1999).

2. **Stereotypy:** Because the motions involved are self comforting, the stereotypic movements may be associated with neglectful situations in which other forms of comfort are not available. Available hypotheses imply that stereotyped movements are a way to release tension or express frustration, that they communicate a need for attention or reinforcement. It is a way of sensory stimulation, for autistic children, since they remain segregated from the environment. It is common to see children in crowded orphanages exhibiting such behaviors (*APA,2000*).

3. **Tourette's syndrome:** It may be one set of possible outcomes of narcissistic, repressed childhood sexuality. Individuals with this syndrome are of a mentally infantile character, narcissistically fixated, from which the healthy developed part of the personality can with difficulty free itself. Tics have been reported to increase in power during early puberty, pregnancy, and childhood, at the time of increased stimulation of the genital regions. (Joesph & Young, 1999)

4. **Non epileptic seizures:** Viewed as a result of intrinsic emotional problem or to internalized conflicts, such as family conflicts, or in individuals with inadequate personalities, adjustment reactions, or who have been victims of sexual or physical abuse. Such individuals may misinterpret or over interpret the occurrences in the environment. Such behaviors increase after they have been reinforced by family members. Individuals having difficulty managing anger or controlling their hostility toward others may result in such manifestation disturbances in patients (Lesser, 2003).

5. **Compulsive acts:** It arises when unacceptable wishes and impulses coming from the id are only partially repressed (driven out of consciousness), thus provoking anxiety and to reduce this, the individual would use the ego defense mechanisms like regression, isolation, undoing and reaction formation. It may also develop because of an individual's feeling of incompetence and inferiority. It may also be explained as an interplay of classical conditioning and operant conditioning where the previously neutral stimuli becomes temporally associated with a fearful stimuli such that the former acquires anxiety provoking properties, resulting in conditioned fear response. Due to the aversive characteristic of the stimuli, escape or avoidance responses are developed, negatively reinforced by the removal of anxiety (Cardwell & Flanagan, 2005).

6. **Catatonia:** Catatonia, long viewed as a motor disorder, may be better understood as a fear response, akin to the animal defense strategy tonic immobility. This proposal, consistent with K. L. Kahlbaum's original conception, is based on similarities between catatonia and tonic immobility ("death feint") as well as evidence that catatonia is associated with anxiety and agitated depression. It is argued that catatonia originally derived from ancestral encounters with carnivores whose predatory instincts were triggered by movement but is now inappropriately expressed in very different modern threat situations. Found in a wide range of psychiatric and serious medical conditions, catatonia may represent a common "end state" response to feelings of imminent doom and can serve as a template to understand other psychiatric disorders (Moskowitz, 2004).

CULTURAL VARIANTS OF MOTOR DISORDERS:

Culture influences the experience and expression of distress from its inception. While Western psychiatry has identified several universal patterns of distress, there are significant geographical variations in the prevalence, symptomatology, course and outcome of psychiatric illness. Several syndromes linked to specific cultures are better considered variations of motor disorders

Ganser syndrome: is a type of factitious disorder, a mental illness in which a person acts as if he or she has a physical or mental illness when in truth, he or she has caused the symptoms. It is characterized by the individual mimicking behavior they think are typical of a psychosis, by providing nonsensical or wrong answers to questions, and doing things incorrectly. The answers given, however, are usually so close to the question as to reveal that the patient has understood the question. Also called nonsense syndrome, balderdash syndrome, syndrome of approximate answers, pseudodementia or prison psychosis. Although this disorder was previously classified as a factitious disorder, the American Psychiatric Association has redefined Ganser's syndrome and placed it in the category called "Dissociative Disorder Not Otherwise Specified."

Latah: reported in Arcadian Maine but linked to Malaysia, is characterized by echolalia, echopraxia, coprolalia (repetitive use of profanity), and automatic obedience within a manic delirium (shouting, yelling, hitting, jumping, and running). Its association with an excessive startle response and its sporadic nature suggests an infectious etiology or manic-depressive illness.

Amok: is a culture-related syndrome associated with south-east Asia, although cases are reported from North America, Britain, and Europe. It is characterized by sudden, frenzied, violent, and often murderous attacks on strangers in public settings with multiple victims. The episode may last hours. Depressive illness or vertigo with visual hallucinations are common prodromes. "Amoks" that are not themselves killed are found in stupor and are amnestic for the attack. Systematic examinations of Amok perpetrators have not been done, but case literature suggests the presence of catatonic features similar to those seen in Latah. Seizure disorder and psychotic mood disorder are possible etiologies.

Lycanthropy: associated with eastern European lore of wolf-men, is the combination of motor disorders with the delusional belief of being changed into an animal due to the influence of the devil. Delusional memories of eating children, killing domestic animals, having coitus with the devil, and interacting with demons were related by sufferers. Associated manic excitement, or "dancing mania" or tarentism (A nervous affection producing melancholy, stupor, and an uncontrollable desire to dance. It was supposed to be produced by the bite of the tarantula, and considered to be incapable of cure except by protracted dancing to appropriate music) is described. Sufferers acted as if wild animals. Fink and Taylor (2003) describe a man who was found by the New York police scurrying around the streets on all fours, roaring, snapping, and biting at passers-by. In the hospital, the man became mute and immobile with generalized analgesia and automatic obedience. He said later that he thought he was a tiger (Taylor & Vaidya, 2009)

PSYCHOLOGICAL MANAGEMENT:

To carry out any psychological intervention, it is a must that there be a good rapport established with the individual concerned and the therapeutic alliance reimbursed, and step forth with the requisite therapy as need be

The strategies of psychoanalytic psychotherapy can also be useful which ranges from insight-oriented (uncovering, evocative or interpretive) techniques to supportive (relationship oriented, suggestive or repressive techniques). Psychoanalytic psychotherapy, in its narrowest sense, is the use of insight oriented methods only. It includes a blend of uncovering and supportive measures. Brief psychotherapy has been found useful in some cases. It is a time limit psychotherapy that is based on psychoanalysis and psychodynamic theory. Supportive therapy recognizes the emotional support and a stable caring atmosphere in the management of the patient. Insight oriented psychotherapy aims at increasing strong motivation to understand (Sadock & Sadock,2007). A non-psychoanalytic, noninterpretative, non confrontational approach that develops an alliance with the patients and shifts the focus from the physical symptoms to the psychological environment is preferable (Joseph & Young, 1999)

Behavioral assessment has three other goals: (1) to define the target behavioral problems; (2) to identify the cognitive habits that are maintaining those behavioral problems; and (3) to make it possible to objectively measure therapeutic progress. To best achieve the latter, behavior therapy focuses on the present manifestations of the target problems. But to ensure the most comprehensive therapeutic results, the therapist gets a detailed personal and medical history

Behavior interventions are directed at the symptoms and the environmental antecedents and consequences that are thought to sustain the symptoms. Typically the sustaining reinforcers are thought to be social attention or escape from a noxious activity and are similar to the concepts of primary and secondary gain. Behavior therapy seeks to systematically reduce the reinforcement

of the symptoms and to reinforce more adaptive social, emotional, and task oriented behavior (Joseph & Young, 1999). Behavior modification techniques may be used including habit reversal training (using a combination of procedures such as awareness training, self monitoring, competing response training and relaxation training), aversion therapy (punishment procedures like time out, response cost, loud noise, aversive tastes, mild electric shock), problem solving skills training , positive reinforcement, etc (Sadock & Sadock,2007)

A number of case reports suggest that hypnosis, relaxation, or drug –induced altered states of consciousness are beneficial for patients with acute conversion symptoms (Brooksbank,1984). Hypnosis is a powerful mean of directing innate capabilities of imagination imagery and attention (Sadock & Sadock,2007). By abreactive therapy we understand: how we forget, how forgetting conflicts cause symptoms, how abreaction in general facilitates recollection, thus replacing a symptom by a conflict, and how 'reverie' (what is usually called 'free association') in particular facilitates recollection (Joseph & Young,1999)

Family therapy focuses on altering the interaction between or among family members and seeks to improve their functioning as a unit. The locus of milieu is a living, learning or working environment (Sadock & Sadock,2007). Clinician can often trace the onset or maintenance of conversion symptoms to family or environmental dynamics. Consequently, family therapy or other environmental interventions are often tried and reported to be sometimes of value in treatment. Helping family to express previously blocked feelings and modifying family dynamics that reinforce the conversion symptoms are common in intervention (Joseph & Young, 1999)

CONCLUSION:

Even after numerous accounts and controversies regarding the issue of wide spectrum of various motor disorders, quite often overlapping, it remains a debate to concretize the etiology of motor disorders, as to being psychogenic or neurogenic. As a group, these disorders are a particularly rewarding challenge for the clinician. Both diagnosis and management can exercise the clinician's skills but the profuse researches, leading to a better understanding into the phenomenon, is a continuing source of enlightenment for the clinicians.

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