



Enhancement of Proficiency in Liaison Psychiatry: An Obligatory Code for Reduction of Forensic Incidents

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Abstract

The incidence of medical slipups in primary care is not rare and the likelihood of faults producing grave harm is great. 'Misdiagnosis' means the improper diagnosis of a morbid condition. On the other hand, while patient's safety is vital in-patient care, there is a shortage of studies on medical errors in primary care settings. Anyhow, the most common errors usually are those related to delayed or missed diagnoses, followed by management inaccuracies. Whereas about one percent of hospital admissions result in an adverse event due to negligence, faults are probably much more common, because these studies detect only errors that led to computable adverse events occurring soon after the slips. Differences in healthcare provider teaching and practice, blurred lines of power of doctors, nurses, and other care providers, poor communication, incoherent recording systems, overestimation of insufficient data, failure to recognize the frequency and significance of medical errors, sleep deficiency and night shifts, unfamiliar settings, doctor's depression, fatigue, and burnout, diverse patients, and, lastly, time pressures have been accounted as important bases of medical fault. So, careful medical checkup, based on acceptable clinical abilities and knowledge, is required for analysis of medical problems, especially in view of therapeutic golden-time. Moreover, supplementary and all-inclusive instructive courses, for upgrading the skills and knowledge of medical students in the field of 'somatic symptom disorder' and consultation-liaison psychiatry conceivably is valuable for diminishing misdiagnosis or negligence. Current medical teaching and tryout cannot discount the vital role of liaison-psychiatry in present-day clinical practice, since the mutual connection between mind and body is more complex than what was thought before in primary care setting.

Abbreviations: APA: American Psychiatric Association; ECT: Electroconvulsive Therapy; HS: Hallevorden-Spatz; NBIA: Neurodegeneration with Brain Iron Accumulation; PANK2: Pantothenate Kinase Gene; LP: Lumber Puncture; SPECT: Single Photon Emission Computed Tomography; PET: Positron Emission Tomography; fMRI: Functional Magnetic Resonance Imaging; MRS: Magnetic Resonance Spectroscopy

Introduction

Medical malpractice law is that segment of tort law that addresses harm caused by health care professionals [1]. It relies on the basic principles of tort law supplemented by special rules that address issues such as statutes of limitation, standard of care, and damage caps to mention a few [2]. The expectations of malpractice law, as written are modest. Medical malpractice law does not expect physicians to cure all their patients. Nor does it expect that any doctor need perform at an above-average level. Rather, medical malpractice law expects only that doctors will not intentionally (i.e. purposefully) or negligently (i.e., unreasonably) harm their patients [3]. Most patients injured by substandard medical care either do not realize the cause, choose not to be vengeful, or just let

it go. Most medical malpractice does not result in a tort claim [4]. The quality of the doctor-patient relationship plays a major role in this decision. Bad outcomes combined with bad feelings increase the likelihood of litigation seeking compensation [5]. Good doctor patient relationship is one of the best ways to prevent an adverse outcome being transformed into a lawsuit [6]. As reflected in the claims made against the liability insurer for American Psychiatric Association (APA) members' the categories of errors claimed to have caused harm were dominated by:

- i. Incorrect treatment (36%)
- ii. Attempted or completed suicide (17%)

- iii. Medication error or drug reaction (14%)
- iv. Incorrect diagnosis (8%)
- v. Unnecessary commitment (4%)
- vi. Improper supervision (4%)
- vii. Breach of confidentiality (3%) and
- viii. Undue familiarity (3%) [7].

Making a diagnosis is only the beginning of any assessment, whether clinical or forensic [8].

In clinical practice, more information must be gathered to understand the patient's psychological state and to devise and implement an appropriate treatment plan [9]. For example, a diagnosis of major depression does not convey any specific information regarding a patient's risk of suicide. An individual with active suicidal ideation, a plan, means, and intent would be provided with vastly different treatment than an individual with no suicidal ideation, even though both may have the same categorical DSM diagnosis. Evaluation of the relevant functional impairment or changes resulting from the mental disorder should be specific and explicit and, where appropriate, should include a dimensional model of description [10]. Otherwise, clinicians run the risk of providing information that is more misleading than helpful to the trier of fact. Impairment, not diagnosis, is the central issue in most types of litigation. Sub-threshold diagnoses illustrate the significant differences between the application of standard categorical diagnosis and that of dimensional diagnosis in litigation. Dimensional diagnosis permits consideration of subsyndromal conditions and their associated impairments along a continuum of symptom severity rather than on all-or-none categorical terms [11]. On the other hand, in the realm of psychiatry, the law's reliance on "official" DSM diagnosis, however, makes the use of a dimensional model problematic.

Attorneys and judicial decision-makers clearly prefer categorical DSM diagnoses. Unfortunately, "gray" medical and psychiatric conditions may not conform to pre-established "black-and-white" categorical diagnoses and may require appreciation of the dimensional nature of diagnosis [12]. Principally, there is a lack of studies regarding medical faults in primary care settings. Many features of primary care such as early presentation of indistinguishable disease [13], different patient population and physiognomies, and the diversity of caregivers and sites of care render the study of medical slips to be complex [14]. This is further complicated by the different error reporting techniques, descriptions and categorizations of varieties of medical slips used by researchers [15]. It has been estimated that around 10-15 percent of doctor's diagnoses are wrong [16]. The current data indicates that medical mistakes kill yearly around 1,80,000 individuals in hospitals. If these implications are exact, the present health care system can be accounted, as well, as a community

health threat [17], the existing scheme of medical negligence or misconduct does a poor job as regards the wellbeing of patients [18]. All the following examples, which have been chosen in this regard, have been diagnosed initially and unreasonably, by at least one neurologist or internist as conversion disorder and referred to psychiatric facilities. So, most of them have been turned finally into a forensic issue. Names, dates and locations have been omitted totally to keep the confidentiality of the cases.

Case Vignettes

I. A thirty-seven years old male technician had been referred to a consultant psychiatrist, due to depression, anxiety, sleep problems, breathlessness and slight weight loss, in the last few months. Although annoying environmental and occupational stresses were manifest in his past and present history, investigation regarding a sudden pleural effusion in him resulted to no reasonable cause or diagnosis. Because the patient did not appear, at all, to be anxious about that and based on the stressors and/or symptoms, Fluoxetine (20-40mg daily) had been prescribed for him with a probable diagnosis of mixed anxiety-depressive disorder. After a few weeks and despite acceptable amelioration of psychological symptoms and the subjective sense of wellbeing, however, losing weight had not been stopped, and since its degree or rapidity was more the SSRI's recognized adverse effect (as a weight reducer), thus he was referred once more to a pulmonary center for a new consultation and examination. After new clinical examination, chest radiography, computed tomography scan of the chest and plural biopsy, the patient was diagnosed as a case of Mesothelioma, and accordingly had been referred to a general hospital.

II. A thirty-six years old obsessive male worker with complains of depression, anxiety, lack of energy, loss of appetite, sleep problems, and trivial physical weakness and negligible weight loss during the last few months, had been referred for a psychiatric consultation. There was obvious history of bothersome professional distresses and multiple family clashes in the past few months, in advance of beginning of the sickness. The routine laboratory and physical examination by an internist, although suitable, was indecisive. So, he was prescribed Clomipramine (50-75mg/day) for a plausible diagnosis of mixed anxiety-depressive disorder. But despite reasonable improvement of symptoms mild weakness and lack of energy did not respond similarly. Hence, after a few weeks he had been referred for an extra psychiatric consultation, and this time after a new physical examination, due to existence of an asymmetrical but true weakness and aching in the upper and lower limbs, absence of rational ideations of depression and to some extent chronological antecedence of somatic symptoms as against psychiatric symptoms, he was referred to a rheumatologic service for a new inspection. After clinical

evaluation, chest radiography, computed tomography scan of the chest, and total body imaging (Bone scanning), the primary diagnosis of Metastatic Bone Tumor had been identified for him. In view of that, the aforesaid weakness of the limbs could be due to systemic symptoms of malaise, anorexia, cachexia, weight loss and bone pain, due to metastatic extra-pulmonary manifestations of small cell (oat cell) carcinoma of the lung, which was his primary suspicious cause of malignancy.

III. A thirty-eight years old male patient had been referred to a psychiatric hospital due to suspiciousness, aggressiveness, movement problems and disturbed sleep. When he was eighteen years old, he had been identified as a case of bipolar disorder due to comparable profile of symptoms, except than movement problems, which had been presented during the last two years. Throughout the last decades several medications, like conventional antipsychotics and mood stabilizers had been prescribed for him. Last year he had been hospitalized in another psychiatric hospital due to his increasing movement difficulties, which had been allocated at that time to 'antipsychotic induced movement disorder' by a consultant neurologist, and so had been tried to be managed dopaminergic drugs like Levodopa-Carbidopa (Sinemet) (750-1000milligram per day), Amantadine (200milligram per day), and also Trihexyphenidyl (6milligram per day). But lack of efficiency and consequent worsening of the problem was evident. Upon the new admission and after a new clinical checkup a mild to moderate instable rigidity and tremor, in the upper and lower limbs, was palpable, which had caused clumsiness and unsteady gait, correspondingly. Also, some problems regarding swallowing solid foods and fluent talking had been displayed, in addition to a fixed stare, smiling expression and drooling. So, another neurologic consultation had been requested by the psychiatrist. The earlier 'antipsychotic induced movement disorder' had been confirmed again by the second consultant neurologist, who, also, proposed 'Tardive Parkinsonism' as a probable differential diagnosis. Due to lack of efficacy of the aforesaid managements, despite discontinuation of prescribed antipsychotic (Quetiapine 75milligram per day), Electroconvulsive therapy (ECT) was started, which terminated after 5 sessions, due to mild fever and absence of remarkable result. Nevertheless, due to refractoriness of movement problems against the suggested managements, their unstable progress and perseverance despite cessation of neuroleptics, and a long gap (around eighteen years) between the prescription of antipsychotics and emergence of movement symptoms, an additional neurologic consultation had been requested for the patient. This time, a suspicious level of serum ceruloplasmin level (23mg/dl), low serum level of copper (76microgram/dl) and increased urinary copper excretion (153microgramm Cu in 24h) had been found. MRI scan, as well, had revealed decreased signal intensity (hypo-density) in the

Striatum and Superior Colliculi and increased signal intensity in the Midbrain Tegmentum (except for Red Nucleus) and in the Lateral Substantia Nigra (Reticular Zone). So, diagnosis of Wilson's disease (Hepato-Lenticular Degeneration) had been proposed for the patient and he had been transferred to a neurologic facility for a more complete survey and treatment.

IV. A twenty-one years old man, with chief complaint of recurrent spastic torsions of the upper and lower limbs and upper trunk and some mild dysknetic movements in the mouth area (lips) from 2 years ago, had been referred to a psychiatric facility by a family physician, as a case of conversion disorder. After approval of the said diagnosis by the clinical psychiatrist the patient had been hospitalized in the psychiatric ward and the management had been initiated by antidepressant, antianxiety and some kinds of psychotherapeutic interventions. But due to futility of the recommended managements, he had been referred to an associate neurologist for consultation. After clinical checkup, the diagnosis of conversion disorder (Hysteria) was approved once more by the consultant neurologist, who founded the diagnosis, as like as the earlier psychiatrist, on irregular pattern of symptoms and their episodic disappearance, possible adverse effects of medications, noncompliance of the patient, and the presence of numerous familial, financial and occupational stressors in his life. But, due to lack of effectiveness of psychiatric treatments, a consultation with another psychiatrist had been requested. This time, after clinical and neurologic examination, due to gradual progression of the symptoms, absence of strong and temporal relationship between symptoms and stresses, happening of symptoms in different situations (social or personal), his personal anguish concerning them (ego-dystonic nature of symptoms), and slight enduring lead-pipe rigidity in his upper and lower limbs, an extra neurologic consultation had been requested for him by the associate psychiatrist. This one was performed by a sub-specialist in movement disorders in an accredited neurological center. After a complete neurological examination and finding of an 'eye-of-the-tiger' sign (central hyper-intensity surrounded by an area of hypo-intensity) in the Globus Pallidus on T2-weighted MRI, the patient's primary diagnosis turned to Hallyvorden-Spatz (HS) disease (Neurodegeneration with Brain Iron Accumulation [NBIA]). So, the patient was transferred to the related neurological ward for receiving further specialized care and investigation, particularly regarding mutations in the Pantothenate Kinase gene (PANK2) on chromosome 20p13.

V. A forty-five years old woman with chief complaint of slurred speech, psychomotor retardation, social isolation, hostility, delusional misidentification, depression, insomnia, suspiciousness, agitation, intermittent stiffness of entire of the body, loss of desire for food and flexible levels of consciousness in the preceding year, had been referred to a state medical

hospital for initial inspection. Primary checkup by an internist and neurologist and laboratory studies and MRI were generally non-diagnostic. So, she had been identified as a case of functional psychosis and had been prescribed antipsychotic and antidepressant by the consultant psychiatrist. But due to absence of valuable effectiveness and more deterioration of the situation, the patient had been referred as a case of catatonic schizophrenia or psychotic depression, to a psychiatric hospital, where the genuineness of the abovementioned diagnoses had been approved for a second time by a consultant neurologist, who had been requested by the clinical psychiatrist for exclusion of organic reasons. But after interview by another consultant psychiatrist, because of sporadic incontinence, restriction of stiffness to the lower part of the body, discernible disorientation and presence of locomotor signs before the appearance of psychiatric symptoms, she was asked again for a third neurological consultation. So this time, after Lumber Puncture (LP) and finding an elevated IgG index and oligoclonal bands, and also a new MRI, which had demonstrated a lot of demyelinating plaques around the ventricles, the primary diagnosis of the patient turned to Multiple Sclerosis and so she had been transferred to an accredited neurological facility to receive the necessary care and therapy.

Discussion

In Forensic medicine medical malpractice Generally has been defined as 'the failure to exercise the degree of skill in diagnosis or treatment that reasonably can be expected from one licensed and holding oneself out as a physician under the circumstances of a particular case' that directly causes harm to a patient. On the other hand, negligence in 'MEDICAL MALPRACTICE' law, generally described as the failure to do something that a reasonable practitioner would have done (omission) or as doing something that a reasonable practitioner would not have done (commission) under circumstances [19]. Forensic medicine, forensic pathology, and legal medicine are terms used interchangeably throughout the world. Forensic medicine is now commonly used to describe all aspects of forensic work rather than just forensic pathology, which is the branch of medicine that investigates death. Clinical forensic medicine refers to that branch of medicine that involves an interaction among law, judiciary, and police officials, generally involving living persons [20]. Sub-threshold conditions in medicine and psychiatry are common and often cause significant impairments. For example, in medicine, a patient may have some, but not all, of the clinical symptoms necessary for a clinician to make a diagnosis of migraine headache but is, nonetheless, debilitated by the pain. Sub-threshold psychiatric conditions may not fit into categorical diagnostic classifications but may also be debilitating [21]. In clinical practice, the fact that a patient's symptoms do not meet all the criteria of a diagnostic category may not be critically significant. Diagnosis in a clinical setting guides treatment.

Treatment of a patient with the entire symptom criteria of depression, social phobia, or PTSD, in most cases, will not differ significantly from treatment of a patient with a moderate to severe sub-threshold form of these disorders. The threshold for treatment intervention generally is severity of symptoms or impairment in function, not whether every diagnostic criterion has been met. If treatment does differ, the clinician has the option over time to change treatment recommendations in response to the evolution or remission of the patient's disorder [22]. Thus, diagnosis may direct evaluators toward closer examination of the range of symptoms associated with that diagnosis and with the functional impairments and specific capacities that are legally relevant. Similarly, the use of diagnosis can limit unsupportable conclusions regarding an individual's past mental status or degree of functional impairment. In addition, diagnoses allow psychiatrists to make knowledgeable observations about the longitudinal course of a disorder and symptoms. In addition, the natural history of a disorder often provides clues to the possible duration of such impairments [23]. Many of the problems regarding misdiagnosis in psychiatry are in the realm of neuropsychiatry. So, forensic neuropsychiatry is an area of forensic psychiatry that addresses the relationship between psychopathology and neuropathology and its relevance to the law [10]. Forensic neuropsychiatric practice makes use of multiple approaches, which include neuropsychological testing, neuro-scientifically based technologies such as neuroimaging and electroencephalography, and the assessment of physical abnormalities via neurological examination. It may also involve the use of technologies derived from the field of molecular genetics and computer science and both theoretical and practical approaches derived from fields such as developmental psychology and bioinformatics [10]. Like other neuro-scientific fields, forensic neuropsychiatry faces the fundamental challenge of identifying and integrating the complex relations between brain function, mind, behavior, and social phenomena [8]. Forensic neuropsychiatric competency may be optimally accomplished by undertaking formal training in both forensic psychiatry and neuropsychiatry. However, many psychiatrists may not have those options [11].

Forensic psychiatric organizations may address training in forensic neuropsychiatric practice by taking a strong role in promoting the development of courses, workshops, and presentations of a forensic neuropsychiatric nature. Although few forensic psychiatrists would contemplate undertaking formal training in neuropsychological testing, improving competency in this area should be addressed by forensic psychiatry since forensic neuropsychiatric assessment often demands detailed assessments of a neuropsychological nature [11]. Training in the area of neuropsychological testing is an area of psychiatric education in great need of attention that is likely to become even more important as progress in the neurosciences continues to influence the nature of psychiatric practice [12]. Greater understanding of brain imaging technology, also, is becoming a training need for psychiatry in

general. Postgraduate exposure to brain imaging technology and to the neurosciences in general may be possible by attending workshops, postgraduate courses, and other training modules offered at conventions sponsored by professional organizations with an interest in promoting neuro-scientific knowledge and clinically oriented neuro-scientific training [8].

The rise of modern neuroscience has been associated with the development of many promising, though relatively new, technologies. Functional brain imaging exemplifies one such type of technology. The most important functional brain imaging technologies are Single Photon Emission Computed Tomography (SPECT), positron emission tomography (PET), Functional Magnetic Resonance Imaging (fMRI), and Magnetic Resonance Spectroscopy (MRS) and all have played a pivotal role in the development of modern clinical neuroscience. Functional brain imaging technologies have led to important advances in our current understanding of many psychiatric disorders. Functional brain imaging is also increasingly used in the legal system in the evaluation of cases of a forensic psychiatric nature, a trend that has led to intense concerns regarding the admissibility of the technology in the legal system [10]. An important question involving functional neuroimaging data is related to normalization and sample selection. Not infrequently, brain imaging studies use a low number of subjects for control and study groups, a situation that may seriously limit statistically acceptable comparisons between the two groups. Another problem may involve inadequate screening of individuals. For example, failure to screen for recent drug abuse or to consider long-term drug effects may result in spurious findings and incorrect interpretations. Similarly, a lack of comprehensive psychiatric diagnostic assessments may result in inadvertent inclusion of comorbid psychiatric conditions that also can compromise the neuropsychiatric validity of brain imaging information [9]. Although these deficits can compromise the ability to differentiate normal from psychopathological states accurately, they may also be minimized by adhering to stringent screening procedures and by relying on appropriate diagnostic protocols. Many of the difficulties associated with brain imaging technology are inherent in the procedures involved in the reconstruction of the biological data into the visual information encompassed by the image. Since these procedures are not standardized, there is ample opportunity for making errors of interpretation.

Factors such as threshold signals, color coding, and scanning machine architecture may all contribute to interpretational errors [11]. Then again, most medical errors result from faulty systems and poorly designed processes versus poor practices or incompetent practitioners [24]. Practitioner risk factors include fatigue [25], depression and burnout [13]. Factors related to the clinical setting include diverse patients, unfamiliar settings, time pressures, and increased patient to nurse staffing ratio increases [26]. According to a study for determining the extent of diagnostic

inaccuracies and management errors in public funded primary care clinics, diagnostic errors were present in 3.6% of medical records and management errors in 53.2%. For management errors, medication errors were present in 41.1% of records, investigation errors in 21.7% and decision-making errors in 14.5%. A total of 39.9% of these errors had the potential to cause serious harm [27]. It deserves to be mentioned that since somatoform disorders are positioned at the crossroad between somatic and mental sicknesses, their differential diagnosis tends to be relatively broad. However, there are numerous characteristics of these illnesses that can assist the differential diagnosis. For example, the presentation of rather ambiguous and multiple physical symptoms originating from several organ systems should usually propose a somatoform disorder instead of a somatic ailment. As the number of somatic symptoms rises (irrespective of whether they are pathologically clarified or inexplicable), so does the probability that those persons will meet criteria for a psychiatric illness, not a medical sickness. The following features can help in deciding whether idiopathic somatic symptoms may have a psychiatric etiology: The symptoms co-exist with important psychiatric illnesses such as depression or panic disorder; The symptoms strictly occur after traumatic events; The symptoms lead to psychological "gratification" or "secondary gain"; The symptoms characterize anticipated personality traits (coping mechanisms); The symptoms become inflexible, join a conglomerate of other symptoms and express such approaches as overuse of medical facilities and disappointment with medical care.

The more of the abovementioned features that are present, the more likely it is that symptoms can be categorized as somatoform symptoms [28]. Additionally, more comprehensive instructive courses, for improvement of skills and knowledge of medical students in the field of 'somatic symptom disorder' and consultation-liaison psychiatry possibly will help to decline misdiagnosis and negligence. Current medical training and rehearsal cannot overlook the vital role of liaison psychiatry and place of psychiatry in contemporary clinical practice, since the reciprocal connection between mind and body is more complex than what was thought before in primary care setting [29].

Conclusion

While the incident of medical faults in primary care settings is noticeable and the odds of slips causing serious damage to patients are great, most of them seem to be avertible, correctable or practicable, if management could be commenced immediately. Consideration of past and present history of medical or mental problems and then meticulous clinical analysis of different stages of the present complaint, together with active attention to drug history are maneuvers that may reduce efficiently malpractice, misdiagnosis, negligence and forensic issues. So, a rigorous work is indispensable for enhancement of patient safety in primary care setting. Upgrading the instructive curriculums in medical schools, like better course in psychological medicine and neuropsychiatry,

or guideline modifications, and continuous post-graduation education and system modifications are among the manageable pedagogic objectives. More research on the topic of prevalence and categories of medical slips, and, as well, interventional studies for reduction of forensic complications possibly will minimize the problem. Moreover, supplementary studies respecting the cultural or societal aspects or causes of malpractice or negligence and pertained issues concerning students, faculties or facilities will help to reduce the trouble.

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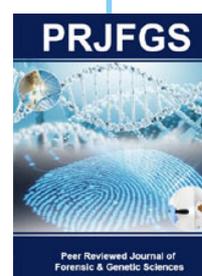
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