

Review Article

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The genealogy of the clinical syndrome of mania: signs and symptoms described in psychiatric texts from 1880 to 1900

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Abstract

In 1800, mania was conceptualized as an agitated psychotic state. By 1900, it closely resembled its modern form. This paper reviews the descriptions of mania in Western psychiatry from 1880 to 1900, when Kraepelin was training and developing his concept of manic-depressive illness. Psychiatric textbooks published 1900–1960 described 22 characteristic manic symptoms/signs the presence of which were recorded in 25 psychiatric textbooks and three other key documents published 1880–1900. Descriptions of mania in these nineteenth century textbooks closely resembled those in the twentieth century, recording a mean (s.d.) of 15.9 (2.3) and 17.0 (2.3) of the characteristic symptoms, respectively ($p=0.12$). The frequency with which individual symptoms were reported was substantially correlated in these two periods ($r=+0.64$). Mendel's 1881 monograph, Kraepelin's first description of mania in 1883 and the entry for mania in Tuke's Dictionary of Psychological Medicine (1892) described a mean (s.d.) of 19 (1.7) of these characteristic symptoms. These descriptions of mania often contained phenomenologically rich descriptions of euphoria, hyperactivity, grandiosity, flight of ideas, and poor judgment. They also emphasized several features not in DSM criteria including changes in character, moral standards and physical appearance, and increased sense of humor and sexual drive. Fifteen authors described key symptoms/signs of mania most reporting elevated mood, motoric hyperactivity and accelerated mental processes. By 1880, the syndrome of mania had been largely stabilized in its modern form. In the formation of his concept of manic-depressive illness, Kraepelin utilized the syndrome of mania as described in the psychiatric community in which he was trained.

The essential character of Mania, is general delirium [delusions]; that is, delirium extending to a multitude of different objects, evinced by confusion and incoherence of ideas succeeding each other with morbid rapidity, and without connection. The perceptions are erroneous, and frequently accompanied with violent passions, as contempt, suspicion, anger, and hatred. Alexander Morison, Scotland 1828 (Morison, 1828, p. 11).

Mania is a term, which appears to have been in use from the earliest period in the history of medicine. It has borne throughout very much its modern significance, expressed briefly in the old English synonym of furious madness.... the modern tendency certainly is to restrict the meaning of mania to a form of acute insanity having more or less definite limitations, and exhibiting certain groups of symptoms more or less distinctly marked. Dictionary of Psychological Medicine, Tuke (ed), 1892 (Tuke, 1892, p. 761).

As indicated by the present-day lay meaning of the term 'maniac', in the early nineteenth century, mania referred to a generic, agitated psychotic syndrome. In the first edition of his Treatise on Insanity written in 1801 (translated 1805), Phillipe Pinel (1745–1826), one of the founders of modern psychiatry, proposed four major categories of psychiatric illness: melancholia, mania, dementia, and idiocy. Cases of mania were, he described, 'under the dominion of instinctive and abstract fury' (Pinel, 1806, p. 150). Later, he noted that mania was

Marked by the lesion of one or more of the functions of the understanding, accompanied by emotions of gaiety, or despondence or of fury (Pinel, 1806, p. 159).

In 1856, the British alienist Monro noted that the syndrome of mania was traditionally applied to all patients who were 'excited and raving' (Monro, 1856, p. 291). He noted that 'We find practitioners in the present day using the word mania in this loose way ... generally understood to be equivalent to lunatic' (Monro, 1856, p. 296).

In 1858, Bucknill and Tuke, in what was the most widely read psychiatric textbook in the UK in their day, began their description of mania by noting that earlier authors defined the syndrome as a disorder of reasoning dominated by delusions and agitated behavior or 'raving madness' (Bucknill & Tuke, 1858). But their view of mania differed from their forebears. They wrote 'While we regard mania as usually having its origin in disordered emotions, we fully admit that the whole mind generally suffers in consequence' (Bucknill & Tuke, 1858,

p. 223). That is, in mania the emotional disorder was primary, and the delusional beliefs and disturbed behavior were secondary consequences of the disordered mood. Psychiatric historians, summarizing these developments, conclude that our current concept of mania is a product of the second half of the nineteenth century during which the older and broader definition of mania – as an agitated psychotic state – was gradually replaced with a narrower syndrome conceptualized as a disorder of affect (Berrios, 1982; Healy, 2008; Hill & Laugharne, 2003). This conclusion is supported by two textbook authors writing in the late 1890s. In 1897, Clark, a well-known Scottish Alienist, noted that ‘Mania is a generic term which has been used rather loosely, until, like the word madness, its English equivalent, it has become almost synonymous in popular phraseology with insanity’ (Clark, 1897, p. 145). In 1898, the American alienist Kellogg wrote ‘The term mania has been vaguely applied by some writers to all active forms of insanity; but it now signifies a distinct type of mental disorder, the opposite of melancholia, running an acute and definite course, and having well-defined symptoms’ (Kellogg, 1897, p. 723). For a more detailed background in 19th psychiatry that forms the historical context of this inquiry, readers might consult the following: Goldstein (1987), Engstrom (2003), Scull *et al.* (1996), Noll (2011).

Turning to the recent past, our current DSM criteria for mania derive, with modest changes, from those proposed in DSM-III in 1980 (American Psychiatric Association, 1980). The DSM-III criteria for mania were strongly influenced by those contained in the Research Diagnostic Criteria in 1975 (Spitzer *et al.* 1975) which were, in turn, partly based on those proposed by Feighner *et al.* (1972). The Feighner criteria for mania are similar to those utilized in a 1967 paper from other faculty at Washington University (Hudgens *et al.* 1967). Then, the historical trail peters out.

To further clarify the historical origins of our concept of mania, I reviewed the clinical descriptions of mania in 18 psychiatric textbooks published in Europe and North America from 1900 to 1956 (Kendler, 2016a). I started in the year 1900 because it was in 1899 that Emil Kraepelin presented for the first time his influential diagnostic synthesis including his concept of manic-depressive illness in the 6th edition of his textbook (Kraepelin, 1899). I identified 22 prominent symptoms and signs of mania reported by five or more authors, which closely resembled both those presented by Kraepelin (1899), and those adopted in the DSM-III (American Psychiatric Association, 1980) and subsequent DSM editions. These 18 textbook authors reported a mean (s.d.) of 17.0 (2.3) of these symptoms/signs, the most common of which were elevated mood, grandiosity, hyperactivity, pressured speech, irritability, and new activities with painful consequences.

In this report, I follow the story of the diagnostic concept of mania back a further 20 years, from 1880 to 1900. I do this first by examining the clinical descriptions of mania in 25 psychiatric textbooks published during these 20 years. To quantify the continuity in the clinical views of mania from the late 19th to the twentieth century, I rated, in these nineteenth century texts, the presence/absence of the 22 characteristic manic symptoms identified in the twentieth century authors (Kendler, 2016a). Second, I examine the clinical descriptions of mania in three other important period documents: an influential monograph on mania by Mendel in 1881 (Mendel, 1881), the entry for mania in Tuke’s, 1892 dictionary of Psychological Medicine (Tuke, 1892), and, Kraepelin’s earliest detailed description of

mania from the first edition of his textbook published in 1883 (Kraepelin, 1883).

The period of 1880–1900 was chosen for two major reasons. First, these were the years when Kraepelin was training and working in psychiatry in Munich, Leipzig, Dorpat, and Heidelberg (Kraepelin, 1987; Trede *et al.* 2005), and formulating his diagnostic synthesis presented in 1899 (Kraepelin, 1899). My goal is to describe the concept(s) of mania to which Kraepelin was exposed in the early and middle years of his professional life. Second, expert opinion in these years was especially well documented by a profusion of psychiatric textbooks providing an excellent historiographic resource.

Methods

I identified textbooks of Psychiatry authored by physicians published 1880–1900 from references available to me and from searches with the term mania, insanity, psychological medicine, psychiatry, alienism and German and French equivalents in <https://archive.org> and <https://www.vialibri.net>. I identified 25 usable textbooks from the USA (11), UK (six) (three from England and three Scotland), Germany (four), France (two), and Austria (two). I rejected three texts that provided insufficient clinical details (Folsom, 1886; Clark, 1892; Gray, 1893) and one – to be discussed later (Blandford, 1886) – that utilized a clinical concept of mania similar to early nineteenth century authors and so could not be well captured by our selected symptoms/signs.

I conducted this study in as similar a manner as possible to my prior investigation of twentieth century texts (Kendler, 2016b) reviewing carefully each book, and summarizing descriptions, if present, for the 22 commonly described manic symptoms and signs identified from the twentieth century authors (Table 1 and online Supplementary Appendix Table 1). For the sake of brevity, I term these *characteristic manic symptoms*. When possible, I used their actual words, but often for concision, paraphrased or condensed their text. Five issues arose during this review. First, I focused on the descriptions of what nearly all authors termed ‘mania’ (or some modification thereof such as acute mania or states of exaltation). In Table 1, I list the specific diagnostic label used by each author. Second, I never accepted symptoms/signs solely described in case reports. Third, if, as they often did, the author described several subtypes of mania (most typically simple, acute, delirious, delusional, and chronic), I took representative symptoms largely or entirely from the mildest category, the syndrome closest to the DSM concept of mania. I never included symptoms or signs only noted for delirious or chronic mania. Fourth, several authors described manic syndromes as part of ‘circular insanity’ or similar terms. I did not include those descriptions. Fifth, when textbooks had multiple available editions, I examined the earliest that I could find that fell within our time-period.

In addition to these 25 texts, I sought out other relevant material from various sources including major psychiatric and general medical Anglophonic journals published 1880–1900. However, this search yielded no useful articles. I did, however, find one key historical monograph on mania by the German neuropsychiatrist, Emanuel Mendel (1839–1907) (Mendel, 1881). Berrios recognized Mendel as ‘perhaps the greatest specialist on mania’ (Berrios, 1988, p. 16) during the late nineteenth century and argued that his monograph was the first major work to use the modern definition of mania (Berrios, 2004). Mendel’s monograph

Table 1. Descriptions of 22 characteristic symptoms and signs of mania in 25 textbooks and Tuke's Dictionary of psychological medicine published 1880–1900 (for results from an Additional 12 Textbooks see online Supplementary Appendix Table 1)

Disorder	Schüle (1880)	von Krafft-Ebing (1881)	Hammond (1883)
Country	Germany	Austria	USA
1. Elevated Mood	Begins as an excitation. Then one sees, of varying intensity, an exaggeration of all moods, – sometimes expansive, as in an innocuous state of excitement – but excessively variable. Sometimes we observe irritability and anger, a dark, hostile mood with angry exclamations, swearing and scorn. Manifestations of joy can also be mingled with unmotivated sadness and gaiety is abruptly interrupted by tears.	A cheerful mood, of pleasure to the point of exuberance, exaltation.	Sometimes a decided predominance of good humor and gaiety. The patient is in a constant state of hilarity, dances, sings, laughs. Not uncommonly, the two chief varieties [irritable-paranoid v. euphoric-grandiose] alternate in the same individual.
2. Hyperactivity	All maniacs present a great disorder of motility. The desires of movements and the movements themselves are increased pathologically. In more extreme states one sees raging, brutal destruction.	The muscular apparatus moves easily and more quickly with a promptness of movement greater than in the normal state. There is always a distinctive hurry and restlessness. This urge to move can increase until there is a loss of control with destruction.	Great mental and physical excitement. The muscular activity of the patient never seems to be exhausted. Can be in a continual state of excitement and motility.
3. Increased rate and quantity of speech	A manic logorrhea – an overabundance of ideas, immediately translated into words. In a flight of ideas, conceptual process represents an idea hunt that no longer follows logical associations, but with disrupted associations. The development of his ideas proceeds by leaps, and the listener must fill the gap.	An accelerated expiration of ideas the connection of which can be quite disparate. There is an inclination to alliterations, and even to speaking in rhyme.	The disposition to talk is unconquerable and words are poured forth in a constant stream.
4. Irritability	Great irritability an avalanche of which is often triggered by some unpleasant reaction, a failed desire, a brusque reply.	Often irritable and cannot tolerate contradiction. They argue, cackle, tease, quickly find the mistakes of others.	Irritated by the slightest cause, excess irritability of temper.
5. Grandiose Ideation	A nucleus of grandeur is typically seen and is supported by natural feelings of pleasure. Suddenly, one can see a fragmentary grandeur of princely descent, demanding covetousness, ideas of wealth, and strength.	He becomes bold, enterprising. The abundance of his ideas stimulate rash and ill-considered actions.	Some patients brag of their strength and other qualities.
6. Poor judgment in new activities	They demonstrate a quick but imperfect judgment. They often assume a mischievous attitude, cheerful, excited, drifts around in inns, and gets drunk quickly. He develops plans for an engagement of marriage, which he quickly and lightly then abandons.	Undertakes ill thought out activities including stealing and traveling, pursues an immoral lifestyle, including sexual excesses, visiting brothels, and starting senseless love adventures.	
7. Delusions	Melancholic and grandiose delusional fragments sometimes arise often mixed with clearer ideas.	Delusions and associated misunderstandings can arise.	Delusions most commonly paranoid but also grandiose.
8. Distractibility			Impossibility of concentrating the attention on any matter. There may be for a short period an exacerbation of volitional power. A sustained effort of the will is, however, impossible.
9. Disorganization of Speech	Speech can grow even more confused into a 'verbal delirium'.	The high-speed acceleration of the thought can lead to confusion.	The thoughts follow each other so rapidly that the speech cannot express them before others, crowding in, stop the articulation in one direction to direct it to another. This produces incoherence of words and ideas.

(Continued)

Table 1. (Continued.)

Disorder	Schüle (1880)	von Krafft-Ebing (1881)	Hammond (1883)
Country	Germany	Austria	USA
10. Hallucinations	There is a rarity of hallucinations.		Perceptions are deranged – hallucinations especially of sight and hearing may be pleasing or frightful.
11. Altered sleep	Sleep is disturbed in all manic states.	They sleep little and the sleep is interrupted many times. They often get up at night.	Obstinate wakefulness is generally present, often without sleep.
12. Change in moral standards	Change of overall character. They demonstrate a range of bacchic and venereal misdeeds.	There is often a conspicuous character transformation. Particularly striking is the disturbance of prudence reflected in the nonchalance and audacity of the performance, passing the bounds of ordinary rules of decency, including obscenity and cynical impudence, to coarseness and socially unacceptable behaviors.	From having held the most moral sentiments, the patient expresses licentious and obscene views. Proneness in those who had strictly observed all social requirements to indulge in indecent conduct such as exposing the person and lascivious gestures.
13. Feelings of well being	They often demonstrate a liberating well-being.	There is increased mental well-being and a sense of psychic pleasure along with feelings of increased physical well-being, increased strength, and mental performance.	
14. Increased sexual drive	The patient often consumes himself in a new lust. In women, the manic impulse manifests itself often by excessive coquetry. Both sexes can demonstrate a Manic ‘hyperaesthesia of the genital sense’, a range of indecent deeds.	An unusual excitability to sensual stimuli. An elevation of sex drive, which leads to the actions otherwise alien to the patient including obscenities and self-sexual excesses. Their sexual excitement manifests itself in obscenities, and impudences against respectable women.	In some cases, erotic emotions can predominate and the cases have an intense and irrepressible desire of sexual intercourse. Indecent advances are shamefully made.
15. Sense of humor		Often show wit, irony and mockery with a keen grasp of relationships.	
16. Appetite	The appetite is increased.		
17. Excess writing	Their writings are of an excessive length. Their letters are longer than usual.	Writes a great deal.	
18. Body weight			
19. Impulsivity	Some patients tear and destroy objects in an impulsive manner.	Often impulsive.	Increase in violence, can be quite dangerous. Paroxysms of fury can occur.
20. Physical appearance	Their skin is soft and moist, they look fresh. Their face becomes purer, more smooth, younger in appearance.		Eyes bright, face heightened in color.
21. Mood lability	Contradictory moods suddenly succeed each other.	Contradiction can put them into anger. Their moods change with ease from maniacal jubilation to phases of angry excitement. They have an enormous increase of emotional excitability.	Emotional system greatly disturbed. May be laughing one moment and shedding bitter tears the next. Not uncommon to see maniacs exhibit love and hatred, benevolence and revenge in the course of an hour.
22. Lack of insight			
Number of Endorsed Symptoms/Signs (22)	18	17	15

Disorder	Clouston (1884)	Salgó (1889)	Scholz (1892)
Country	UK – Scotland	Austria	Germany
1. Elevated Mood	Mania may be defined as morbid mental exaltation, can be quite intense.	Exaltation, joyful liveliness, upbeat mood.	A cheerful joyous mood.
2. Hyperactivity	Restless but can worsen to shouting, singing, rushing about wildly, can be assaultive.	Ceaseless and restless activity. Starts things again and again but rarely finishes anything. They often sing, make all sorts of noises.	Overactive, restless, hasty. Laughs aloud.
3. Increased rate and quantity of speech	Loquacious, talking constantly due to rapid and uncontrolled passing of ideas through the mind.	Exceedingly garrulous. Appears more talkative with increased acceleration of speech and mental associations. They move from one object to another in rapid succession. Flight of ideas.	Chatters much. Suffers from overfill of rapidly chasing thoughts.
4. Irritability	Often sensitive and irritable. Will be most indignant and quarrel if you hint there is something wrong with them.	The patients do not tolerate any contradiction and can easily become angry.	
5. Grandiose Ideation	Views of himself, his prospects, his capacities, his possession all exceed what the facts warrant.	Increased self-esteem, increased confidence in their strength and their ability for untiring action.	Feelings that he can do more than others, dare more, be more successful. Self-esteem increases to such an extent that he proposes great ideals, impossible plans.
6. Poor judgment in new activities	Judgment not to be depended upon. Foolish in his manner. Common sense has gone. Often creates scandal and wastes money.		Designs plans, buys, builds but his plans often fail because he has no time to deliberate.
7. Delusions	Usually accompanied by delusions typically with themes of extravagance but can be persecutory.	Delusions of grandeur are common.	Occur but not always disclosed by patient.
8. Distractibility			
9. Disorganization of Speech	Passing from one thing to another in their speech which soon can become incoherent. Rhyming speech also common. The quick succession of ideas seems more by chance than by true associations.	Goes from one thing to another, always distracted, not finishing tasks.	He talks senselessly, things getting mixed up because of the connection of ideas is lost, a lot of word rhyming.
10. Hallucinations	Voices are sometimes heard or their forms seen.	Their utterances can become totally incoherent with unrelated words combined incoherently, often by rhyme or as a result of sounding similar with one idea chasing the other.	Occur in more severe forms, especially visual and auditory.
11. Altered sleep	Do not sleep well.	Hallucinations uncommon.	Sleep is inadequate.
12. Change in moral standards	The system of checks and habits that constitute a man's moral character sometimes vanishes like the early dew at the beginning of mania. Patients lose their fine feelings and sensibilities. Often morbidly vain. Not only are the morals affected but the whole character is altered.	For the most part sleepless.	Often violates the morals of decency, because moral and aesthetic concerns have no time to assert themselves.
13. Feelings of well-being	Often become very joyous.		Cheerful mood, the feeling of well-being. Increased sensations of pleasure, force and health.
14. Sexual drive	Excitation of sexual desire and disregard of morals and appearances in gratifying it is very common.	Displays a cheerful mental constitution with self-confidence.	Sexual excesses are common. In women, especially, maniacal self-esteem often takes an

(Continued)

Table 1. (Continued.)

	Clouston (1884)	Salgó (1889)	Scholz (1892)
Disorder	States of Mental Exaltation – Mania	Mania	Mania
Country	UK – Scotland	Austria	Germany
			erotic form, considering herself to be particularly beautiful and alluring.
15. Sense of humor		When in contact with the other sex, they are often obtrusive and shameless in their behavior. Often show an obtrusive erotic exaltation.	The Maniacal has a keen eye for the weaknesses in his social environment and can be witty, funny and satirical.
16. Appetite	Increased appetite each twice or three times as much as normal.	Witty and pointed remarks.	Appetite is present, but because he is so restless, the patient often does not eat enough to satisfy himself properly.
17. Excess writing			
18. Body weight	In acute mania, weight is always lost.	Writes letters in immense numbers.	The body weight also decreases.
19. Impulsivity	Loss of power of self-control. Can be dangerous in more advanced forms.	Physically declines and develops a poor nutritional state.	
20. Physical appearance	The face is flushed and the expression is always changed especially the appearance and expression in the eyes which glisten.		The attitude of the maniacal is firm, straight. The facial features are in slight tension, the eyes are animated, the movements are energetic and powerful.
21. Mood lability	May shift from laughing to scolding and swearing.	Look is animated, gestures hasty, language rushing and bubbly.	
22. Lack of insight	No conscious sense of ill-being, of anything wrong. Do not know anything is wrong with them.	Very easy for them to sway between cheerfulness, irritability and angry displeasure.	
Number of Endorsed Symptoms/Signs (22)	19	17	17

Disorder	Stearns(1893)	Shaw (1894)	Maudsley (1895)
Country	USA	USA	UK – England
1. Elevated Mood	Continued hilarity and excitement.	Mental exaltation.	Extraordinary excitement, flushed with glowing feelings of elation.
2. Hyperactivity	Restless motor activity. The patient rarely remains quiet, or in one position longer than a few minutes. He is on the move. In some cases, expends itself in a harmless manner, as in dancing, running, singing, and shouting.	Their physical activity corresponds to their mood – they are in constant motion. The muscular movements can become wild and disorderly.	An urgent desire to be moving and doing, wherefore the person, instigated by pure internal unrest, wanders from home without knowing why or whither, or is restlessly occupied in senseless acts. Can lead to loud declamations, singing, and bursts of meaningless laughter.
3. Increased rate and quantity of speech	Becomes more loquacious than before – the words flow rapidly and freely.	Ideas flow with abnormal rapidity, they speak constantly.	Ideas rise instantly, flow swiftly, and strike more easy and varied associations; not well-worn associations only, but occasional and disused associations, while the transient chance forming of new track junctions give rise sometimes to novel turns of thought, puns of speech.
4. Irritability		They are irritable and cannot bear the least opposition or contradiction, readily become angry.	Expansive cordiality being pulled up short and displaced instantly by a menacing glare of angry suspicion, and friendly salutations turning in a moment to coarse abuse.
5. Grandiose Ideation	Exaggerated self-confidence.	There is a feeling of personal importance. The exaggeration of personality may lead them to say they are kings, queens, great actors, musicians, or statesmen.	The sense of personal power and freedom is increased, a triumphant sense of confidence.
6. Poor judgment in new activities	Impairment of judgment and self-control. They become careless in relation to business, lavish in expenditures, ready to undertake new projects, fond of questionable society, and careless of reputation. They enter upon risky financial transactions, seek the society of lewd women.	Men organize all sorts of business plans, give contradictory orders, or make plans for enjoyment without regard to expense. They go to excess in wine and women.	He is not unlikely to entertain projects of business, travel, pleasure, perhaps marriage, which are foreign to the principles of his sane and sober self.
7. Delusions	Clearly defined and fixed delusions are rarely present in acute maniacal excitement. However, delusions of a transitory character are not uncommon – the patient feeling that he is a person of the largest importance, that he has filled positions of authority and influence in the past.		Often occur in more advanced states.
8. Distractibility	A failure in the power of attention. As excitement increases, they have difficulty in fixing the attention, except for a very limited time.		Neither in moods, nor in thoughts, nor in deeds usually is there constancy or coherence; a sound, a sight, a word, a gesture which catches a momentary attention suffices to cause an instant and abrupt change.
9. Disorganization of Speech	Derangement and confusion of thought.	In mild cases the association of ideas may remain logical, but as they become more and more rapid, abundant, and disorderly, they become confused.	Ideas are rapid, incomplete and incoherent, the currents of them being interrupted before they are finished, and crossed at random by other ideas which in turn do not get themselves finished.
10. Hallucinations	Hallucinations of the special organs of sense, particularly of hearing and smell, are present in from one-third to one-half of the cases.	Illusions and hallucinations may occur.	In acute mania, false perceptions are common, especially visual and auditory.
11. Altered sleep	Cases of acute mania in which the sleep is not greatly disturbed are the exception. Insomnia is one of the most constant and troublesome of conditions.	They lose sleep.	The patient is not troubled by the want of sleep although he sleeps little.

(Continued)

Table 1. (Continued.)

	Stearns(1893)	Shaw (1894)	Maudsley (1895)
Disorder	Mania	Mania	Insanity with Excitement – Mania
Country	USA	USA	UK – England
12. Change in moral standards	Patients exhibit a change of character, and adopt such courses of conduct as are quite at variance with their antecedents. The conduct is without any moral basis. They demonstrate a moral blindness. All their past life of rectitude and probity goes for naught.	They can lose all sense of decency.	A deterioration of the moral and social self which, as matters get worse, passes into the deeper dissolution evinced by brutal disregard of others, reckless contempt of proprieties, even coarse neglect of decent behavior.
13. Feelings of well-being	A feeling of satisfaction and good will toward every one becomes manifest. The patient rejoices – he was never better in his life.	They are self-satisfied.	A realization of the joy of living never experienced before, a supreme satisfaction with self, a sanguine self-confidence.
14. Sexual drive	A morbid excitement of the sexual centers which causes patients, and especially women, who have always exhibited the greatest delicacy of speech and of bearing, to become vulgar and indecent in speech and lascivious in manner.		A revival of sexual desire and an increase of sexual power or a restoration of the past sexual functions. Sexual feeling, prone and prompt to be coarsely obtrusive, shows itself in equivocal words, in lascivious gestures and attitudes, sometimes in acts of repulsive lust.
15. Sense of humor			Jocular in speech, lively in repartee, prone to make clever and caustic sallies.
16. Appetite	The appetite is typically keen.	They take little food.	The appetite is voracious.
17. Excess writing			
18. Body weight		As episode progress, their weight can diminish rapidly.	
19. Impulsivity	Impulses become stronger and are less easily restrained, can become, as in a paroxysm, suddenly violent.	They are the victims of their rapidly-changing ideas and impulses.	
20. Physical appearance	The physiognomy becomes fuller. the eyes become brighter.		So animated is the visage sometimes that the person looks ten years younger; the dull eye becoming bright, the complexion fresh and blooming.
21. Mood lability		They cry then laugh.	Fitful and abruptly changing moods
22. Lack of Insight			
Number of Endorsed Symptoms/Signs (22)	16	15	18

	Clark (1897)	Lewis (1899)	Church & Peterson (1900)
Disorder	Mania	States of Exaltation – Mania	Mania
Country	UK – Scotland	UK – England	USA
1. Elevated Mood	The state of feeling in mania determines to a considerable extent the character of the disease. There may be exaltation or suspicion, to which must be added anger, love, fear.	Mental exaltation, exuberant joy, rise of pleasurable emotions.	Elated, exalted.
2. Hyperactivity	The patient talks, shouts, whistles, dances, sings, anything to make a noise.	Restless movement, energetic pantomime, energetic in movements, incessantly restless. Can lead to laughter, singing, shouting, ceaseless activity.	
3. Increased rate and quantity of speech		Garrulous, rapid flow of thought. Often rhyming tendency and/or association by similarity. Ideas arise in extremely rapid sequence, being swayed by every passing incident. Rapid in his utterances. Can lead to tumultuous flow of incoherent thought.	The accelerated flow of ideas in mania is conspicuous in their speech, varying from garrulity to logorrhea. The sounds of words spoken suggest others of similar sound, giving rise to rimes and assonances.
4. Irritability	Extreme irritability and impatience.		
5. Grandiose Ideation		Exalted self-feeling begets notions of power and self-importance. May announce himself to be some mighty personage.	Optimistic and egotistic. The elated mood and rapid flow of ideas give rise to expansive ideas mostly in regard to strength, beauty, and intellectual powers.
6. Poor judgment in new activities		Judgment may be perverted and he can perform actions disastrous to himself and others, has impractical schemes of philanthropy with extravagant and ludicrous proffers of patronage.	
7. Delusions	The patient may give expression to delusions; he is frequently morbidly angry and suspicious; but the delusions are often of an exalted character, although by no means always. They are often utterly irrational and inconsequent. In acute mania they are often mere insane suggestions, fleeting in character.	Transient delusions common typically with grandiose themes.	Transitory grandiose delusions common.
8. Distractibility		Failure of attention, a slave to every passing impression, to every causal thought.	Their attention to so many things and an unpausing stream of ideas results in an absolute lack of concentration. His attention cannot be held a moment.
9. Disorganization of Speech	The association of ideas is usually jerky and erratic, and some patients are mentally boiling over with old recollections which come away in their speech in a rapid, continuous stream.	Speech can be disconnected, incoherent.	But in the more striking grades, the logorrhea is so pronounced that it is impossible to find clues to any association. It becomes a chaos of words.
10. Hallucinations	Hallucinations are not infrequent in acute mania.	Sensorial disturbances – illusions and hallucinations are very frequent.	One-fifth of the cases are illusions and hallucinations present, and these are almost always limited to vision.
11. Altered sleep	Sleep is a very deficient and uncertain quantity. It may be entirely lost.		Sleeplessness is characteristic of this condition.
12. Change in moral standards	The moral sense is obscured or perverted. It would appear sometimes as if the patient were fully conscious that he was doing wrong and much is done from pure cussedness, to annoy and irritate others.	Depraved appetites can spring into life.	Absolute lack of modesty, employment of vulgar and obscene words and expressions. This profanity and obscenity become all the more astonishing by contrast, when it is observed, as it often is, in the most refined and cultured of women.

(Continued)

Table 1. (Continued.)

	Clark (1897)	Lewis (1899)	Church & Peterson (1900)
Disorder	Mania	States of Exaltation – Mania	Mania
Country	UK – Scotland	UK – England	USA
13. Feelings of well-being		Welling-up of pleasurable emotions, sense of well-being and joy. A rise of the pleasurable emotions. An exalted pleasurable self-feeling pervades the subject.	Everything about him is rose-colored. He feels rejuvenated; rejoices in his health, strength, and vitality.
14. Sexual drive	Eroticism is sometimes manifested, and often leads to indecent exposure in males as well as females.	Can react to trivial excitant with utter disregard for decency – shameless masturbation, nymphomaniacal states. Dirty degraded habits can arise.	The sexual instinct is morbidly exalted, giving rise in both sexes to immodesty and obscenity of speech and manner, and often to sexual excesses and masturbation.
15. Sense of humor		Excessive hilarity.	
16. Appetite	The appetite may be capricious, or voracious, the patient bolting his food, but refusal of food can be seen.	Often indifferent but sometimes exalted.	An anorexia during the early stage and until the culmination – then an increase of appetite amounting often to bulimia.
17. Excess writing			
18. Body weight			The general bodily weight diminishes during the progress of the disease.
19. Impulsivity	He is a creature of impulses. The manner and degree of impulsive excitement varies.	Impulsive conduct common, can be destructive, violent, blindly impetuous.	
20. Physical appearance		A strange light gleams in their eye, have an animated expression.	
21. Mood lability			
22. Lack of Insight			
Number of Endorsed Symptoms/Signs (22)	11	17	14

Disorder	Potts (1900) Mania	Comparison of Descriptions of Mania in 25 Textbooks 1880–1900 v. 18 Textbooks 1900–1960			Tuke (1892) Mania
		1880–1900 Number of endorsed positive out of 25	1900–1960 Number of endorsed positive out of 18	Exact <i>p</i> value	
Country	USA				UK – England
1. Elevated Mood	Mental exaltation, abnormally happy and gay.	25 ^a	18	1	Emotional exaltation, gaiety, varying from mere levity to the most unbounded hilariousness.
2. Hyperactivity	Increased activity and restlessness; they always want to be on the go. Can be rushing and jumping about his apartment, making grimaces and gestures.	24 ^a	18	1	Psychomotor restlessness.
3. Increased rate and quantity of speech	Patient is loquacious, and with more severe forms pours out continually a stream of incoherent threatenings, obscenities, prayers, and blasphemies. Ideas seem to crowd into the brain with such rapidity that he has not time to express them all.	23 ^a	18	0.50	A rapid flow of ideas where the ideas often arrange themselves along lines of verbal assonance. The maniac is almost always talking.
4. Irritability	Increased pugnaciousness.	16 ^a	18	.006	His temper is easily roused to the extreme of fury. In some cases, bad temper and quarrelsomeness so far predominate as to be a special feature in the ailment.
5. Grandiose Ideation	Increased egotism.	22 ^a	18	.25	Exalted ideas are common in the maniac.
6. Poor judgment in new activities	Various projects – business, political, social, etc. – are devised, and as soon abandoned.	17 ^a	18	.01	
7. Delusions	Sometimes delusions are present.	23 ^a	17	1.00	Delusions connected with hallucination, or originating spontaneously, occur. These are usually conformable to the emotional state.
8. Distractibility		13 ^a	17	0.003	Inability to fix the attention is common.
9. Disorganization of Speech		24 ^a	16	0.56	Incoherence in conversation is a very striking and important symptom in cases of mania.
10. Hallucinations	May be present.	23 ^a	15	0.63	In the typical form, hallucinations of vision or of hearing occur at one time or other.
11. Altered sleep	Insomnia is marked.	22 ^a	15	0.68	Insomnia is always a marked feature in mania. In many cases there appears to be hardly any sleep for almost incredible periods.
12. Change in moral standards	A marked tendency to dissipation of all sorts often develops.	19 ^a	14	1.00	
13. Feelings of well-being		20 ^a	14	1.00	A joyous feeling of freedom, strength, and well-being.
14. Sexual drive	There is usually great sexual excitement.	22 ^a	12	0.13	Erotic excitement is very common. In more severe forms, all restraint is abandoned. Many cases of mania exhibit a strong tendency to masturbation.
15. Sense of humor	Conversation may be witty and even brilliant.	11 ^a	12	0.22	An appearance of wit and smartness is common
16. Appetite	The appetite is voracious.	20 ^a	12	0.48	The appetite is typically capricious.

(Continued)

Table 1. (Continued.)

Disorder	Comparison of Descriptions of Mania in 25 Textbooks 1880–1900 v. 18 Textbooks 1900–1960		Exact <i>p</i> value	Tuke (1892) Mania
	Potts (1900) Mania	1880–1900 Number of endorsed positive out of 25		
Country	USA			UK – England
17. Excess writing		7	.02	
18. Body weight	Great loss of weight.	12 ^a	0.76	In the early stage, patients tend to rapidly lose flesh and remains meagre.
19. Impulsivity		14 ^a	0.76	Loss of control is characteristic.
20. Physical appearance		16 ^a	0.11	Patients assume a bright, sharp intelligent look.

was the first citation in Kraepelin's chapters on mania in the 1st (Kraepelin, 1883), 2nd (Kraepelin, 1887), 3rd (Kraepelin, 1889), 4th (Kraepelin, 1893), and 5th editions (Kraepelin, 1896) of his textbook. I also examined the entry for mania in Tuke's Dictionary of Psychological Medicine published in 1892 (Tuke, 1892). Finally, because of its direct historical relevance, I examined in detail the description of mania in the first edition of Kraepelin's textbook, published in 1883 when he was 27 years old (Kraepelin, 1883).

Where possible, I relied on English translations. When none was available, I worked with the French and German texts, relying extensively on on-line translators and dictionaries. I had the assistance of a professional German-English translator, Ms. Astrid Klee, for key sections of Mendel and Kraepelin. The translations of the textbooks in Table 1 (and online Supplementary Appendix Table 1) are rough and literal with no claims to linguistic subtlety or high literary quality.

Results

Survey of textbook descriptions

The number of 22 characteristic manic symptoms and signs described in each of the 25 textbooks outlined in Table 1 (and online Supplementary Appendix Table 1) ranged from 11 to 19 with a mean (s.d.) of 15.9 (2.3), non-significantly lower than those reported by the twentieth century authors ($t = 1.58$, $df = 41$, $p = 0.12$) (Kendler, 2016b). The frequency of the occurrence of each of the 22 symptoms in the nineteenth and twentieth century texts were compared by a Fisher exact test (two-tailed) with a Bonferroni corrected p value of $0.05/22 = 0.002$. None differed at this threshold. A Spearman rank correlation of the frequency of reporting of the 22 symptoms/signs in the late nineteenth and the twentieth century authors was $r = +0.64$ ($p < 0.001$).

All 25 authors described, in a variety of ways, mood changes as present and prominent in the manic syndrome. The terms applied were diverse and included 'exuberance, exaltation, excitement, boisterousness, gayety, hilarity, ecstasy, joyfulness, elevation, euphoria, elation, expansiveness, exuberance, and cheerfulness.' While most authors emphasized the importance of elevated mood in their description, this was not the case for three of them, two of which published in the early 1880s. Schüle noted joy as often present but put greater emphasis on the intense display of a wide variety of moods with irritability and anger as prominent as more positive affect, sometimes with sadness intermingled (Schüle, 1880). Luys emphasized excitation and hyperactivity in the manic state without a clear description of prominent positive mood (Luys, 1881). Clark (1897) also does not clearly describe euphoria or increased well-being. He pictures mania as an agitated state, which could be grandiose but as likely was paranoid, irritable, and irascible.

Twenty-three or 24 of our authors described five other key symptoms and signs of mania: hyperactivity, pressured speech, delusions, disorganized speech, and hallucinations. When commented upon, the content of the delusions and hallucinations were usually grandiose but sometimes persecutory. A number of authors noted that the delusions were often fleeting and not fixed in nature, and usually 'remain[ed] within certain limits not far removed from possibility' (Wernicke, 2015).

Twenty-two of our 25 authors noted non-delusional grandiose ideation, reductions in sleep and often colorful descriptions of the effects of an increased sex drive. Twenty authors described a basal

sense of increased well-being (using additional terms such as joyfulness, self-confidence, cheerfulness, and hopefulness) and a range of alterations in appetite as important parts of the manic syndrome.

Nineteen authors noted a change in moral standards as typical in mania. Comments include ‘a conspicuous character transformation...they demonstrate a range of bacchic and venereal misdeeds, ... from having held the most moral sentiments, the patient expresses licentious and obscene views... A deterioration of the moral and social self.’

The effects of poor judgment, often in financial, business or romantic ventures, were described by 17 authors. Sixteen authors commented on the frequent presence of irritability during manic episodes and a change in the patient’s physical appearance, particularly looked younger, the skin looking fresh and healthy and the eyes bright and sparkling.

Fifteen authors comment on mood lability, 14 on impulsivity and 13 on distractibility prominent during mania. The remaining symptoms and signs, noted by 12 or fewer of the authors, include changes in body weight, improved sense of humor or wittiness, hypergraphia and lack of insight.

While not noted in the twentieth century texts, 10 of our nineteenth century authors commented about the heightened sensory acuity associated with mania with the following descriptions being typical:

Demonstrate a hyperesthesia of the senses: all sensations are felt in a more intense way (Schüle, 1880)... perceptions appear more acute (Spitzka, 1883) ... The organs of special sense are almost always the seat of a more or less marked hyperesthesia (Régis, 1895).

Fifteen of our authors commented about course and outcome, eight of whom gave estimates of the average duration, the mean (s.d.) of which was 4.3 (1.5) months. Eleven commented on prognosis and/or the probability of recovery. All stated that general prognosis was favorable, some noting that relapse was relatively common. One wrote ‘Mania is one of the most curable of all forms of insanity’ (Kellogg, 1897) and another ‘I would further say that cures may be perfect, so that the patient becomes as sane and reasonable as ever he was in his life’ (Savage, 1884). When noted, recovery rates were estimated at between 70 and 80%.

Mendel’s monograph

The 196-page monograph ‘Die Manie’ was published in 1881 and contained, in its section ‘Die Pathologie der Manie,’ a detailed clinical description of the syndrome as understood by Mendel. Table 2 contains a condensed version of his key section on the ‘Exalted Stage’, in which Mendel makes specific mention of 18 of the 22 characteristic manic symptoms, all but distractibility, change in appetite and body weight and lack of insight. I have italicized the sections that describe these symptoms and give the numbers for each symptom/sign as listed in Table 1.

His introductory paragraph emphasizes three core features of mania: a speeding up and increased freedom of thought, motoric hyperactivity and mood elevation. His detailed clinical sections contain often rich descriptions of affective instability, pressured and tangential speech, increased libido and associated change in ‘moral standards,’ and grandiose ideation.

Tuke’s dictionary

D. Hack Tuke (1827–1895) edited a two volume 1477-page dictionary of Psychological Medicine published in 1892, the first of its kind. It contained a detailed seven-page entry on mania (Tuke, 1892, pp. 761–767) which provided often vivid examples of 18 of the 22 characteristic symptoms and signs of mania (which are detailed in the last entry into Table 1). The entry begins with the introductory quote above and then goes on as follows:

Mania may be defined as being an affection of the mind characterized by an acceleration of the processes connected with the faculty of imagination together with emotional exaltation, psychomotor restlessness, and an unstable and excitable condition of the temper (Tuke, 1892, p. 761).

Only poor judgment, change in moral standards, excess writing and lack of insight are not described.

Kraepelin’s first edition

Fortunately, Kraepelin has left us with an excellent record of his clinical views of mania early in his career. He finished his formal psychiatric training with von Gudden in Munich in 1881. In 1882–1883, he was living in Leipzig both studying with the founder of experimental psychology, Wundt, and working as a clinical assistant to the neurologist/neuropathologist, Wilhelm Erb. He was then approached, via a friend, with an offer to write a compendium of psychiatry by a recognized publisher. Wundt encouraged him to undertake this, which he did, completing most of it in the spring of 1883 when he was 27 years old (Kraepelin, 1987, pp. 23–25).

The section on mania takes up 20 of the 384 pages of this ‘compendium’ which were newly translated for this essay (Kraepelin, 1883). A complete translation is given in the online Supplementary Appendix and a condensed version – focusing on the symptoms and signs of mania – is provided in Table 3 with the same numbering and italicization as Table 2. Kraepelin provided often vivid descriptions of all the major symptoms and signs of mania except characteristic changes in physical appearance.

Conceptualizations of mania

Finally, 15 of our authors provided concise and readily interpretable definitions of mania (Table 4). The three most frequently mentioned fundamental symptoms were: accelerated mental processes – 13, elevated mood – 11, and hyperactivity – 11. Of these authors, six note all three symptoms, eight note two and only one – Wernicke (2015) – reports a single key symptom – for him ‘intrapyschical hyperfunction’.

Discussion

Two bodies of evidence set the stage for this inquiry. First, historical studies have demonstrated that the syndrome of mania at the beginning of the nineteenth century was non-specific, reflecting a generic picture of agitated insanity. Over the nineteenth century, our modern concept of mania – as an affectively-based syndrome with well-characterized symptoms and signs – gradually emerged (Berrios, 1982; Healy, 2008; Hill & Laugharne, 2003). Second, my prior inquiry showed that the depiction of mania in psychiatric textbooks written from 1900 to 1956 (Kendler, 2016a) was

Table 2. Translation of a condensed version of Emanuel Mendel's 'Die Manie: Eine Monographie 1881' pp. 15–19. Chapter 2, The Pathology of Mania: Typical Mania. The Exalted Stage^a

The stage of exaltation [1] is marked by the diminishment and disappearance of the unpleasant sensations in body and mind [which dominate the prodromal, often a depressive phase]... What also disappears is the inhibition in thinking, such that thoughts appear now with greater ease and freedom, *quickly forming connections which would normally proceed with great effort; words flow easily* [3], expressions are striking and surprising in their combinations, *rhymes and verse emerge spontaneously* ... the power of creativity and memory are truly sharpened... *The flight of ideas* [3] is reflected externally by *increased motor activity, lively gestures, hand movements, restless moving this way and that, standing up and sitting down*. [2] All unpleasant physical sensations have disappeared and instead have made room for a feeling of general well-being [13]. Correspondingly, mental processes occur with ease and the patient is taken hold of by a *buoyant, humorous, happy disposition* [13]. The cares of the day and concerns about the future no longer have a place in the content of consciousness, which is now *entirely happy* [13]. The patient would like to involve others in his own happiness, and as a result *wastes money on drink, gifts and unnecessary buying* [6]. This buoyant, happy mood however lasts only as long as the uninhibited mental processes, and their expression in word and deed, do not encounter an external impediment. The happy exuberance *changes immediately into anger and rage if the patient is contradicted or is restricted in utterances or in the carrying out of his actions* [4,21]. *Laughter and crying, fits of rage and good-natured abandonment quickly switch over from one to the other* [21]. *Natural impulses, in accordance with the patient's disposition, are no longer contained by the powerful concepts of custom and decency, assume a rampant course* [including especially] *excesses of Bacchus and Venus* ... [12,14]. By means of ambiguity in speech, excessive familiarity, *coquettish stances, sensuous glances, or the tickling and caressing of a grasped hand, usually very decent women, inappropriately reveal their increased sexual impulses, making use of the most obscene expressions towards refined men* [12,14]. The lack of regard for social conventions makes the patients reckless within their social sphere [12]. Often they cause severe embarrassment to their family or doctors through *biting wit, satirical remarks* [15], shameless revelations and pronouncements concerning the weaknesses within their social sphere, about certain physical or mental deficiencies, as well as the flaws of the institution. Ingeniously they know how to make trouble for their own ends: they bring about discord through exaggerations and untruths, inflaming their relatives against the doctors, setting other patients against the doctors, as well as against the guards, and also the patients against each other... *The flight of ideas proceeds faster and faster, new thoughts entering consciousness, even before the previous ones had come to a natural completion. In constant talking, which becomes Delirium verborum, (tongue madness), tumbling thoughts are strung together, and coherent and incoherent speech, citations from old and new classics – sometimes in other languages – are all mixed together* [9]. No-one else gets a chance to speak. *A remark thrown out, a facial expression or simply a sound become the starting point for a series of colorfully mixed thoughts, which have no internal coherence, the sequence of words and sentences instead being determined by external, non-essential factors, such as alliteration or the assonance of words* [9]... *The writing of patients corresponds to the restlessness of their thoughts: Express letters, telegrams and tube mail letters are written, words are underlined 2 or 3 times, and exclamation marks are added* [17]... *Outwardly the patient's restlessness is expressed by walking about, by an inability to stand still even for a moment* [2] They fight with their arms and move their facial muscles in the liveliest manner, *while their eyes seem to be shining and their faces ruddy* [20]. *Judgment is lost in the flurry of thoughts thrown together* [6]. Misperceptions emerge, which, in congruence with the feeling of general well-being, of unhindered, comparatively greater mental and physical ability, become *grandiose ideas or delusions* [5,7]. Projects for the future, which the patient had planned on previous days, and which had still seemed within the boundaries of the possible, not seeming to contradict external circumstances, are now assumed to have already been fulfilled: *He has become a rich man, he has already made the long-sought discovery, honorary positions and high government positions are at his disposal, etc* [5,7] In between, however, misperceptions emerge, which manifest outwardly like a disability... The prevailing disorientation which emerges in most cases is reinforced by misperceptions; *facial illusions, especially the inability to recognize familiar people, who now seem to be connected with the patient's grandiose delusions, and appear to be elevated and important people who have come to observe the patient or serve him in the institution. Facial hallucinations lead to radiant apparitions, such as the appearance of the 'Dear Lord', etc* [10]. Seldom are these hallucinations of hearing, and even less frequently hallucinations related to smell and taste.

... *Those drives, which, at the commencement of this stage, already exist to a high degree, increase even more, and are only to be hindered from full gratification by the restriction of the patient's freedom* [19]. *The increased sexual drive in both men and women leads to masturbation, which, due to the patient's general lack of consideration, is often carried out shamelessly in the open* [14]. ... *sleep is restless and sometimes even absent* [11].

^aNumbers in square brackets reflect the characteristic manic symptoms as enumerated in Table 1 with the relevant text in italics.

congruent with our modern concept of the syndrome as captured by the mania criteria in DSM-III (American Psychiatric Association, 1980), although many of the textbook authors provided a wider range of symptoms and signs.

This study therefore examined the nature of the descriptions of the manic syndrome over the critical years of 1880–1900 during which modern psychiatric nosology was shaped by Emil Kraepelin. I used contemporary documents to attempt to distinguish between two hypotheses: (i) something approaching the modern concept of mania was widely accepted by 1880 and was incorporated with little change into Kraepelin's structure of manic-depressive illness, and (ii) the concept of mania as a psychiatric syndrome was in substantial flux during these years and was only stabilized by Kraepelin with his creation of manic-depressive insanity in 1899.

Two major sources of information were brought to bear on this question. I first examined descriptions of mania in 25 textbooks published from 1880 to 1900 and compared these descriptions with those previously examined from the twentieth century textbooks (Kendler, 2016a). The symptoms and signs used to describe mania were similar in the two sets of texts. The mean number of recorded symptoms – from the 22 characteristic symptoms selected from the twentieth century texts – did not differ. No individual symptom/sign was reported more frequently in one

group than the other. The rank order of frequency with which they were reported was highly correlated in the two sets of documents.

There were, however, some differences in the nineteenth century descriptions. First, we found one textbook published in 1886 which stood out qualitatively (Blandford, 1886). In his description of mania, Blandford made no mention of euphoria, grandiosity, pressured speech, poor judgement, unrealistic plans, or increased libido. No changes were noted in well-being. Rather, the picture of mania was of an agitated, disruptive, disinhibited psychosis patient, similar to the non-specific syndrome of mania dominant earlier in the century. Second, for three of our textbook authors, positive mood was noted but not emphasized as much as agitation, irritability or anger (Schüle, 1880; Luys, 1881; Clark, 1897). Third, a different set of four authors (of the 15 who provided succinct definitions of mania, Table 4) did not include elevated affect as a key symptom (Hammond, 1883; Kirchhoff, 1893; Berkley, 1900; Wernicke, 2015). The transition in the conceptualization of mania for a non-specific psychotic illness to a defined affective syndrome was, although well on its way by 1880, likely not entirely complete by 1900.

We verified the results from our textbook analysis by an examination of three additional important contemporaneous documents. In his influential monograph on Mania, Mendel in 1881

Table 3. Translation of a Condensed Version of Emil Kraepelin's Compendium der Psychiatrie zum Gebrauche für Studierende und Aerzte (1883): Mania (pages 241–261)^a (Kraepelin, 1883)

The fundamental manifestation of this disease picture, compiled under the name mania, constitutes an abnormal facilitation in the thought processes and the transformation of central feelings of pleasure into actions.... *Disposition fluctuates rapidly and unexpectedly from one extreme to another* [21], but tends to be predominantly buoyant and exalted [1]. External excitement is ... *the result of easy and prompt transformation of every impulse into an actual action* [19] of the loss of central inhibitions, whereas a healthy person mostly suppresses such impulses as they arise. ... [In] the mildest forms of mania ... the perception of outer impressions and the process of imaginings is facilitated, the interests of the patient expanding in the most varied directions ... It is the ease with which distant similarities are apprehended which often impresses the listener. The patient is capable of *witty phrases and insights, puns and surprising comparisons* [15]... Within their environment, gifted patients thus occasionally, in these forms of mania, seem to be in a state of genial *euphoria* [1] and increased intellectual ability, until their thoughts lose coherence due to the *increased elation* [1], and even skeptics have to admit to the pathological nature of the observed changes. Invariably, even in the mildest forms of the disorder, the lack of inner coherence of thoughts, the inability to follow a consistent series of concepts, the inability to calmly, logically work through and order given ideas, the volatility of interests, *the abrupt and unexpected jumps from one thing to another* [8], are all exceedingly characteristic.... The fundamental disposition of the patient is mostly buoyant. Admittedly this phenomenon is not established in the process of the illness from the outset; rather it is only the lability, the facilitated change of disposition that is characteristic for mania. The perception of ease with which all psychological processes take place, the falling away of inhibitions, are all a source of *perpetual feelings of pleasure* [13], which result in an especially exalted disposition. [But] ... any dissent, or anyone disallowing his wishes and so forth, will *cause a significant increase in irritability in his disposition. Even minor events bring about severe, but quickly passing, affects of anger* [4]. The self-image of the patient usually presents as *grandiose. For him there are no difficulties and obstacles; everything he tackles has to have a successful outcome* [5]. Part of the malaise is a *lack of insight into the illness* [22]. He feels so *healthy and capable, as never before in his life* [13] and disregards every suspicion of a psychological disturbance with laughter or indignation. Every new impression is construed optimistically in the light of the *reigning feeling of pleasure, and in this manner serves to increasingly strengthen the self-satisfaction of the patient* [13]. The outer world appears to him in the 'rosiest light'; the most foolish undertakings and ideas are taken up by him with completely uncritical enthusiasm.... The patient has an urge to go beyond himself, to have lively interaction with his environment, to play a role. He thus starts to go out a lot, to visit taverns, societies, places of entertainment, to travel, *to write many long letters* [17], to take care of all possible matters and relationships, which previously lay far from his mind. *He enters into many relationships, builds castles of air and throws himself, with quickly changing enthusiasm, from one undertaking to another, without ever completing anything. In this vein, on the spur of the moment, he may undertake a long, unplanned journey, collect all manner of useless things, make meaningless purchases and barter, because every new object excites his desire, to such an extent that his pathological desire to own some or other longed for object, occasionally leads to theft and fraud* [6]. The outer behavior of the patient, to begin with, becomes conspicuous due to his inflated self-esteem ... Handwriting has large pretentious features, many exclamation and question marks, much underlining ... The patient leads conversations wherever he goes, pushes himself forward at every opportunity, wants everyone to notice him; he often talks about himself, often in the third person, to give himself a certain esteem, he postures, *strongly exaggerates his accomplishments and achievements to his notable acquaintances* [5] without sticking closely to the truth. *He often unashamedly lets himself go, offends decency and custom, tells obscene jokes in the company of ladies, behaves with cordial familiarity towards strangers and people of a higher social standing, becomes best friends and enters a state of familiar brotherhood with anyone that comes along, and gets into frequent conflict with his environment and public order* [6,12], because he follows his momentary whims and inspirations, leading to all kinds of willful, imprudent and improper actions. *Soon the patient, who may have been disciplined and respectable previously, ... begins to give himself over to all kinds of excesses, gets drunk, plays pointless games, remains out all night, hangs around brothels and dubious locales, smokes and uses snuff excessively, eating strong spices and so forth.* [6,12] *In women, the exaltation is often expressed in lively sexual desires that are especially noticeable in a conspicuous way of dressing, in shameless behavior, suggestive intimacies, in the tendency to attend balls, to be coquettish, to get involved in love affairs and to read risqué novels* [14]. Often these conspicuous changes in character [12] are not initially seen by society as pathological, instead they are viewed as lapses in morality, and vain attempts may be made to correct them by means of friendly discussion and social measures. It is entirely the same in the case of the sequence of ideas... This abnormal facilitation of apperception ... meekly surrenders the patient's content of consciousness to the arbitrary influences of the environment and *the play of associations, ultimately allows the most distant and superficial similarities to be enough to determine associative connections between completely heterogeneous elements. As a result of such often uncontrollable, convoluted mental leaps, which often come about due to simple word associations, rhymes and suchlike, the facilitated process of conceptualization eventually loses all inherent cohesion* [9]... An almost consistent phenomenon in the course of intensive manic exaltation is *the appearance of hallucinations* [10], mostly having the character of centrifugal distortions. They are fantastical, change frequently, the content of the imagination being related to the false perception of disparate sense areas: colorful moving scenes, nodding laughing figures, angels, large armies, music, loud voices, mostly pleasant, and only more rarely with annoying content etc. Cases where hallucinations appear at the outset in huge quantities and continuously dominate the situation have been summarized under the description 'hallucinatory mania'. Hallucinations often connect to *delusional ideas. Mostly the content of these is more expansive; the patient claims to be emperor, king, Christ, the mother of God or immortal, etc.* [7] These delusions are however always just passing phenomena; they are not processed internally, nor taken into the consciousness of the personality, but should instead be seen as notions which have only gained an element of intensity as a result of the general feeling of increased capability, and due to the facilitated lack of critical ability, which for the time being remains uncorrected. Disposition is mostly expansive in character, it is however definitely not consistently so ... *instead there is almost always a rapid and frequent change of affects, in which the feelings of pleasure however mostly gain the upper hand, and which thus tend to give the disease picture its peculiar coloring. In the middle of paroxysms of the most exuberant exaltation, a sudden, unexpected sad resentment will make its fleeting appearance,* [21] accompanied by vehement crying and wailing, which will disappear as rapidly as it came about, giving way to the previous state. Or there may be intermittent, *lively outbreaks of furious petulance along with the tendency to aggressive acts directed toward the environment* [4, 19]... Corresponding to the increased liveliness of the affects, the motor exaltation also gains in exceptional intensity. *The patient is dominated by a reckless urge to move, which often does not allow him to rest either in the day or at night* [2]. Almost without a break *his ideas come rapidly and he perorates incoherently,* [3,9] grimaces, laughs, then cries, then is angry again, or sings in between. *He jeers, whistles, claps hands, jumps and dances around in the room* [2]. ... *Sexual arousal is vented by means of disgraceful speech and in shameless masturbation. In the case of the female gender, also in the loosening of hair, salving with saliva, frequent spitting out, ranting with obscene expressions, and particularly a tendency to sexual suspicion of the guards* [14]... *Sleep is very significantly disturbed in cases of mania. Even in its mildest forms the patients often spend their nights occupied in various excesses or projects, go to bed very late and then get up again at daybreak to go for long walks, write letters and suchlike. In cases where the agitation is of a greater intensity, there is usually complete insomnia* [11], with only one or very few hours of interrupted sleep, which state continues sometimes for weeks and even months. *Appetite is increased, sometimes significantly, but the constant restlessness often prevents the patients from taking in regular nourishment* [16]. *Nutrition tends to decline in severe cases, body weight showing a regular decrease* [18] but which admittedly usually is not significant.... The duration of mania is on average a period of 5–7 months, and seldom stretches over a year.... The prognosis of mania is generally very favorable; about 4/5^{ths} of cases recover; the most favorable is hypomania. In cases of a longer duration of the illness and a higher number of relapses, the chances for healing decrease.

^aNumbers in square brackets reflect the characteristic manic symptoms as enumerated in Table 1 with the relevant text in italics.

Table 4. Concise descriptions of the nature of the manic syndrome from 15 Authors 1880–1900

Author	Year	Country	Individual symptoms/signs			Description ^a
			↑Mood	Hyper-activity	↑Mental Processes	
Hammond (1883)	1883	USA		+	+	By acute mania is to be understood a condition of mental derangement characterized by illusions, hallucinations, delusions, great mental and physical excitement, and often by a tendency to the perpetration of acts of violence and extravagance. p. 535
Kraepelin (1883)	1883	Germany	+		+	The fundamental manifestation of this disease picture, compiled under the name mania, constitutes an abnormal facilitation in the thought processes and the transformation of central feelings of pleasure into actions. p. 241
Spitzka (1883)	1883	USA	+		+	Mania is a form of insanity characterized by an exalted emotional state which is associated with a corresponding exaltation of other mental and nervous functions. p. 131
Scholz (1892)	1892	Germany	+		+	The essence of mania consists in an increase in mental processes. The consequence of this facilitated mental activity include a cheerful, joyous mood, a strong sense of strength and self-confidence. p. 103.
Kirchhoff (1893)	1892 (Translated 1893)	Germany		+	+	A morbidly elated mood constitutes the fundamental basis of mania, varying from slight cheerfulness to violent rage. It is accompanied constantly by an accelerated flow of ideas, and by an accelerated conversion of mental excitement into acts. p. 201–202
Tuke (1892) (editor)	1892	UK	+	+	+	Mania may be defined as being an affection of the mind characterized by an acceleration of the processes connected with the faculty of imagination together with emotional exaltation, psychomotor restlessness, and an unstable and excitable condition of the temper. p. 761
Wernicke (2015)	1894	Germany			+	Mania is a syndrome which may be derived in all its symptoms from the state of intrapsychical hyperfunction. p. 437
Burr (1894)	1894	USA	+	+		Mania is an insanity the leading characteristics of which are elation, changing delusions, [and] active excitement. p. 34
Krafft-Ebing (1905)	1897 (translated 1905)	Austria	+	+	+	The fundamental symptoms of maniacal insanity are a change of self-consciousness characterized by a predominating pleasurable emotional state, and an abnormal ease and rapidity of thought which may become so intense that all control of the psychomotor side of the mind is wanting. p. 312.
Kellogg (1897)	1897	USA	+	+	+	Mania is attended by loss of the higher forms of inhibition, by increased flow of ideas, quickened rate of mental processes, expansive and pleasurable emotions [and] motor excitement. p. 723–4
Chapin (1898)	1898	USA	+	+	+	Mania is characterized by an abnormal exaltation and activity of mental functions – the intellectual faculties, the emotions, and the will – and may show itself by irrational talking and acting, by delusions and hallucinations, and by unusual activity or movements. p. 101
Church & Peterson (1900)	1899	USA	+	+	+	Mania is a form of insanity characterized by emotional exaltation, acceleration of the flow of ideas, and motor agitation. p. 694
Macpherson (1899)	1899	UK	+	+	+	The most prominent feature of mania is a morbid excitement of the general functional activity of the

(Continued)

Table 4. (Continued.)

Author	Year	Country	Individual symptoms/signs			Description ^a
			↑Mood	Hyper-activity	↑Mental Processes	
						cerebral cortex, expressed in the intellectual sphere and upon motility. It is the disorder of motility on which depends the exaltation, gaiety and pleasure invariably present. p. 172
Berkley (1900)	1900	USA		+	+	Mania may be defined as a functional disease of the brain, characterized by a morbid increase in the activity of the imagination, accompanied by loss of the power of correlation of the ideas, and by a hyperexcitability of the motor centers of the brain, shown by the muscular agitation. p. 143
Potts (1900)	1900	USA	+	+		Mania is a form of insanity characterized in its full development by mental exaltation and bodily excitement. p. 406

^aSometimes shortened/abbreviated for conciseness.

described in considerable detail a clinical picture of mania very similar to that given by the twentieth century authors. The compact but thorough entry on mania in the first dictionary of Psychological Medicine in 1892 also closely resembled modern textbook descriptions of mania (Tuke, 1892). Both important texts noted the presence of 18 of our 22 characteristic manic symptoms. Most definitively, Kraepelin's first description of mania from 1883 included 21 of the 22 characteristic manic symptoms and closely resembled in both tone and content those provided by the twentieth century psychiatric textbook authors. Importantly, in our prior historical paper on mania (Kendler, 2016a), we noted that Kraepelin's lengthier description of mania in his critical 6th edition (Kraepelin, 1899) – which contained the first full proposal for MDI – was very similar in content including descriptions of all 22 of our characteristic manic signs and symptoms.

Fifteen of our authors provided succinct definitions of mania, which were dominated by three underlying psychopathological constructs: accelerated mental processes, elevated mood and physical hyperactivity. Not surprisingly, these results are congruent with our findings that elevated mood, hyperactivity and increased rate and quantity of speech were the three most commonly reported manic symptoms and signs among our 1880–1900 textbook authors. They also suggest that the commonly expressed view of psychiatric historians that mania developed over nineteenth century into a specific disorder of affect (Berrios, 1982; Hill & Laugharne, 2003; Healy, 2008) is slightly oversimplified. While elevated mood was understood to play a central role in manic psychopathology, many authors saw changes in the speed of cognitive processing and level of physical activity to also represent important pathological processes that were not always considered secondary to morbid changes in mood. These findings are supportive of the extension of the primary criterion of the manic syndrome in DSM-5 to include 'persistently increased activity' (American Psychiatric Association, 2013; Machado-Vieira *et al.* 2017). In our description of the twentieth century texts on mania, we noted nine authors who reported signs and symptoms they considered to be primary (Kendler, 2016a). All of them emphasized the same three features: elevated mood, hyperactivity and increased rate of speech. This list is obviously

closely related to those features emphasized by textbook authors from 1880 to 1900.

In aggregate, our results presented suggest a high degree of consilience between the clinical views of mania in the 20 years prior to the publication of Kraepelin's key 6th edition and the 60 years after. Our various sources concur in supporting the hypothesis that the modern concept of mania was largely, although not completely, formed by 1880. Thus, the historical evidence strongly suggests that Kraepelin incorporated into his overarching structure of manic-depressive illness, the concept of mania as a well delineated broadly defined affective syndrome that he learned early in his career. It is important to note that, as documented by Trede *et al.* (2005), it is the *syndrome* of mania that stayed relatively constant from 1880 to 1900. By contrast, the nosologic status of mania changed dramatically across Kraepelin's textbooks from a free-standing independent disorder to a phase of illness within MDI.

What was responsible for the emerging consensus in the diagnostic view of mania in the late nineteenth century? While I lack data that directly address this question, some speculation is warranted. First, the increasing influence of faculty psychology across this time period helped provide a conceptual underpinning for the emergence of a mood-centered definition of mania (Berrios, 1988). Second, especially in Germany, the focus of psychiatric research was shifting from asylums to universities and psychiatric journals and textbooks began to proliferate in Europe and the USA after mid-century (Engstrom, 2003). The improved communication and the rise of widely recognized experts (e.g. Mendel (1881)) may have helped build a diagnostic consensus about the nature of mania.

Conclusion

This review has produced strong evidence for clinical and phenomenological continuity of the concept of mania described in the mainstream Western psychiatric tradition over the last 135 years. Kraepelin helped to pass on this tradition via his widely-adopted concept of manic-depressive illness, but did not substantially alter the view of nature of the syndrome of mania that he learned as a training psychiatrist. As we saw in our earlier

review covering the twentieth century (Kendler, 2016a), the expert clinicians of the late nineteenth century described a broader array of symptoms and signs for mania than is contained in our DSMs. Furthermore, their descriptions of the classical symptoms were often richer than are depicted in most modern texts. Our current clinical concept of mania has demonstrated sustained clinical utility and a substantial degree of stability over time and space.

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References

- American Psychiatric Association** (1980) *Diagnostic and Statistical Manual of Mental Disorders*, 3rd Edn. Washington, DC: American Psychiatric Association.
- American Psychiatric Association** (2013) *Diagnostic and Statistical Manual of Mental Disorders: Fifth Edition, DSM-5*. Washington, DC: American Psychiatric Association.
- Berkley HJ** (1900) *A Treatise on Mental Diseases*. New York: D. Appleton and Company.
- Berrios GE** (1982) History of the affective disorders. In Paykel ES (ed) *Handbook of Affective Disorders*. London, UK: Churchill Livingstone, pp. 43–56
- Berrios GE** (1988) Depressive and manic states during the nineteenth century. In Georgotas A and Cancro R (eds), *Depression and Mania*. New York, NY: Elsevier, pp. 13–25.
- Berrios GE** (2004) Of mania: introduction (classic text no. 57). *History of Psychiatry* 15, 105–124.
- Blandford GF** (1886) *Insanity and Its Treatment Lectures on The Treatment, Medical and Legal, of Insane Patients*, 3rd Edn. New York: William Wood and Company.
- Bucknill JC and Tuke DH** (1858) *A Manual of Psychological Medicine: The History, Nosology, Description, Statistics, Diagnosis, Pathology, and Treatment of Insanity*. Philadelphia: Blanchard and Lea.
- Burr CB** (1894) *A Primer of Psychology and Mental Disease*. Detroit, MI: George S. Davis.
- Chapin JB** (1898) *A Compendium of Insanity*. Philadelphia: W.B. Saunders.
- Church A and Peterson F** (1900) *Nervous and Mental Diseases*, 2nd Edn. Philadelphia: W.B. Saunders.
- Clark AC** (1897) *Clinical Manual of Mental Diseases: For Practitioners and Students*. London: Baillière, Tindall and Cox.
- Clark D** (1892) *Notes on Mental Diseases: By a Student*. Toronto: Toronto University Medical College.
- Clouston TS** (1884) *Clinical Lectures on Mental Diseases*, 1st Edn. Philadelphia, PA: Henry C. Lea's Son & CO. (Dornan).
- Engstrom EJ** (2003) *Clinical Psychiatry in Imperial Germany: A History of Psychiatric Practice*. Ithaca, NY: Cornell University Press.
- Feighner JP, Robins E, Guze SB, Woodruff Jr. RA, Winokur G and Munoz R** (1972) Diagnostic criteria for use in psychiatric research. *Archives of General Psychiatry* 26, 57–63.
- Folsom CF** (1886) *Mental Diseases*, 5th volume. Boston: American System of Medicine.
- Goldstein J** (1987) *Console and Classify: The French Psychiatric Profession in the Nineteenth Century*. New York: Cambridge University Press.
- Gray LC** (1893) *A Treatise on Nervous and Mental Diseases for Students and Practitioners of Medicine*. Philadelphia: Lea Brothers & Company.
- Hammond WA** (1883) *A Treatise on Insanity in its Medical Relations*. New York: D. Appleton and Company.
- Healy D** (2008) *Mania: A Short History of Bipolar Disorder*. Baltimore: Johns Hopkins University Press.
- Hill SA and Laugharne R** (2003) Mania, dementia and melancholia in the 1870s: admissions to a Cornwall asylum. *Journal of the Royal Society of Medicine* 96, 361–363.
- Hudgens RW, Morrison JR and Barchha RG** (1967) Life events and onset of primary affective disorders. A study of 40 hospitalized patients and 40 controls. *Archives of General Psychiatry* 16, 134–145.
- Kellogg TH** (1897) *A Text-Book on Mental Diseases for the use of Students and Practitioners of Medicine*. New York, NY: William Wood & Company.
- Kendler KS** (2016a) The clinical features of mania and their representation in modern diagnostic criteria. *Psychological Medicine* 47, 1013–1029.
- Kendler KS** (2016b) The phenomenology of major depression and the representativeness and nature of DSM criteria. *American Journal of Psychiatry* 173, 771–780.
- Kirchhoff T** (1893) *Handbook of Insanity for Practitioners and Students*. New York: William Wood & Company.
- Kraepelin E** (1883) *Compendium der Psychiatrie: Zum Gebrauche für Studirende und Aerzte* Verlag von Ambr. Leipzig: Abel.
- Kraepelin E** (1887) *Psychiatrie: Ein kurzes Lehrbuch für Studirende un Aerzte*, 2nd Edn. Leipzig: Abel.
- Kraepelin E** (1889) *Psychiatrie: Ein kurzes Lehrbuch für Studirende un Aerzte*, 3rd Edn. Leipzig: J.A. Barth.
- Kraepelin E** (1893) *Psychiatrie: Ein kurzes Lehrbuch für Studirende un Aerzte*, 4th Edn. Leipzig: Abel.
- Kraepelin E** (1896) *Psychiatrie: Ein Lehrbuch für Studirende und Aerzte*, 5th Edn. Leipzig: Barth.
- Kraepelin E** (1897) *Memoirs/Emil Kraepelin*. Berlin: Springer-Verlag.
- Kraepelin E** (1899) *Psychiatrie: Ein Lehrbuch für Studirende und Aerzte (6th Ed. 2 Vols.)*, 6th Edn. Leipzig: von Barth Verlag.
- Krafft-Ebing RV** (1905) *Text-book of Insanity: Based on Clinical Observations. For Practitioners and Students of Medicine. (Authorized Translation from the Last German Edition by Charles Gilbert Chaddock, MD)*. Philadelphia: F. A. Davis Company.
- Lewis WB** (1899) *A Text-Book of Mental Diseases: With Special Reference to The Pathological Aspects of Insanity*, 2nd Edn. London: Charles Griffin and Company, Limited.
- Luys J** (1881) *Traité Clinique et Pratique Des Maladies Mentales*. Paris: Adrien Delahaye et Émile Lecrosnier, Éditeurs.
- Machado-Vieira R, Luckenbaugh DA, Ballard ED, Henter ID, Tohen M, Suppes T and Zarate Jr. CA** (2017) Increased activity or energy as a primary criterion for the diagnosis of bipolar mania in DSM-5: findings from the STEP-BD study. *American Journal of Psychiatry* 174, 70–76.
- Macpherson J** (1899) *Mental Affections: An Introduction to the Study of Insanity*. London: Macmillan and Company.
- Maudsley H** (1895) *The Pathology of Mind: A Study of Its Distempers, Deformities, and Disorders*. London: Macmillan and Company.
- Mendel E** (1881) *Die Manie: Eine Monographie*. Leipzig: Urban & Schwarzenberg.
- Monro H** (1856) On the nomenclature of the various forms of insanity. *British Journal of Psychiatry* 2, 286–305.
- Morison A** (1828) *Cases of Mental Disease, with Practical Observation on The Medical Treatment: For The Use of Students*. Edinburgh: Maclachlan & Stewart.
- Noll R** (2011) *American Madness: The Rise and Fall of Dementia Praecox*. Cambridge: Harvard University Press.
- Pinel PH** (1806) *A Treatise on Insanity, in Which are Contained The Principles of a New and More Practical Nosology of Maniacal Disorders*. Sheffield: Printed by W. Todd for Messrs. London: Cadell and Davies, Strand.
- Potts CS** (1900) *Nervous and Mental Diseases: A Manual for Students and Practitioners*. Philadelphia: Lea Brothers & Company.
- Régis E** (1895) *A Practical Manual of Mental Medicine*, 2nd Edn. Philadelphia: P. Blakiston, Son & Company.
- Salgó J** (1889) *Compendium Der Psychiatrie Für Praktische Aerzte Und Studirende*. Wein: Verlag Von Bermann & Altmann (Alleiniger, Inhaber David Bermann).
- Savage GH** (1884) *Insanity and Allied Neuroses: Practical and Clinical*. Philadelphia: Henry C. Lea's Son & Company.
- Scholz F** (1892) *Lehrbuch der Irrenheilkunde: Für Aerzte und Studirende*. Leipzig: Eduard Heinrich Mayer (Einhorn & Jäger).

- Schüle H** (1880) *Handbuch Der Geisteskrankheiten*. Leipzig: Verlag Von F.C.W. Vogel.
- Scull A, MacKensie C and Hervey N** (1996) *Masters of Bedlam: The Transformation of the Mad Doctoring Trade*, 1st Edn. Princeton, NY: Princeton University Press.
- Shaw JC** (1894) *Essentials of Nervous Diseases and Insanity: Their Symptoms and Treatment. A Manual for Students and Practitioners*, 2nd Edn, revised ed. Philadelphia: W.B. Saunders.
- Spitzer RL, Endicott J and Robins E** (1975) *Research Diagnostic Criteria for a Selected Group of Functional Disorders*, 2nd Edn. New York: New York Psychiatric Institute.
- Spitzka EC** (1883) *Insanity: Its Classification, Diagnosis and Treatment, A Manual for Students and Practitioners of Medicine*, 1st Edn. New York, NY: Bermingham & Company.
- Stearns HP** (1893) *Lectures on Mental Diseases: Designed Especially for Medical Students and General Practitioners*. Philadelphia: P. Blakiston, Son & Company.
- Trede K, Salvatore P, Baethge C, Gerhard A, Maggini C and Baldessarini RJ** (2005) Manic-depressive illness: evolution in Kraepelin's textbook, 1883–1926. *Harvard Review of Psychiatry* **13**, 155–178.
- Tuke DH** (1892) *A Dictionary of Psychological Medicine: Giving the Definition, Etymology and Synonyms of the Terms Used in Medical Psychology*. Philadelphia: P. Blakiston, Son & Company.
- von Krafft-Ebing R** (1881) *Lehrbuch der Gerichtlichen Psychopathologie (mit Berücksichtigung Der Gesetzgebung Von Österreich, Deutschland Und Frankreich)*, 2nd Edn. Stuttgart: Verlag Von Ferdinand Enke.
- Wernicke C** (2015) *An Outline of Psychiatry in Clinical Lectures: The Lectures of Carl Wernicke (Translated by Robert Miller and John Demmison)*, 1st Edn. New York: Springer.