COMMENTARY

Conceptual Competence in Psychiatry: Recommendations for Education and Training

Awais Aftab[1] · G. Scott Waterman[2]

It has been recognized since the early days of modern psychiatry that conceptual and philosophical questions are intimately tied to more practical and clinical issues such as classification, diagnosis, and treatment. For instance, in the early twentieth century, philosopher and psychiatrist Karl Jaspers argued in his magnum opus, *General Psychopathology*, for the importance of phenomenological thinking and methodological pluralism [1]. The evolution of the interdisciplinary field of philosophy of psychiatry in the last few decades, with its analytic outlook and renewed focus on examination of fundamental concepts in psychiatry (sometimes dubbed the "new philosophy of psychiatry" [2], is in many ways a philosophical response to the criticisms of the antipsychiatry movement. The highly controversial and heavily contested claims of Thomas Szasz that mental illness as a category does not exist and is a "myth" relied on philosophical arguments regarding the nature of mental disorders [3]. The outright rejection of psychiatry as a medical enterprise by Szasz and others such as R.D. Laing and Michel Foucault was itself rejected by most psychiatrists, though many also recognized that academic engagement with the philosophical questions raised by such criticism was warranted [2]. The resulting body of academic work has addressed important topics such as the role of values in psychiatric diagnosis and treatment, the nature of causation and explanation in psychiatry, and the scientific status of psychiatric classification.

Importantly, contemporary philosophy of psychiatry does not have an adversarial relationship with the profession. It recognizes the tremendous suffering of the mentally ill and its focus is on providing clinical psychiatry the philosophical foundations required to address that suffering. Parallel to the advent of this new philosophy of psychiatry has been the rise of the "critical psychiatry" movement [4]. Its proponents often begin with conceptual concerns but focus more on their practical implications such as the medicalization of human distress, the impact of diagnosis on the lived experiences of those so labeled, the influence of the pharmaceutical industry on psychiatric practice, institutional corruption, and coercion in psychiatry [4]. Unfortunately, despite the flourishing of the sister movements of contemporary philosophy of psychiatry and critical psychiatry, mainstream psychiatry has remained largely insulated from philosophical discourse. As a result, the conceptual malaise surrounding the nature of mental disorder that philosophy of psychiatry is meant to address is increasingly evident in the discourse within and about psychiatry. As recently as October 2019, commentators in *The New England Journal of Medicine* have called for "a fundamental rethinking of psychiatric knowledge creation and training" in the context of what they call psychiatry's identity crisis [5].

We believe one of the reasons the profession finds itself in its current predicament is that the conceptual and philosophical underpinnings of psychiatric theory and practice have not been accorded the prominence they deserve and require and, in fact, have been excluded from medical student and residency training in most programs. The considerable challenges facing our discipline will not be met without rethinking our approach to educating and training the next generation of psychiatrists, specifically attending to the implicit—and thus rarely confronted, examined, and questioned—conceptual foundations of the field.

To remedy this state of affairs, we introduce in this article the notion of "conceptual competence" and argue for the necessity of its achievement by psychiatry trainees. We present what we consider to be the essential elements of conceptual competence and offer suggestions of resources for educators seeking to redress this deficiency. Moreover, our proposal comes in the context of increasing calls to modernize psychiatric training [6], to include philosophy of psychiatry in

✉ Awais Aftab
awaisaftab@gmail.com

1 Case Western Reserve University, Cleveland, OH, USA

2 University of Vermont, Burlington, VT, USA

psychiatry residency didactic curricula [7], to engage psychiatric taxonomy with critical consciousness, and to equip professionals to use psychiatric diagnoses responsibly (conceptual competence in psychiatric diagnosis) [8]. There have also been calls to engage with philosophy and psychiatric skepticism in medical student education [9].

The connection between the problems facing psychiatry and a dearth of conceptual competence is evident from a few pertinent examples: The reification of DSM constructs in current psychiatric practice can directly be linked to poor philosophical understandings of the nature of DSM diagnoses [10]. The tendency toward biological reductionism is a consequence of an unreflective privileging of biological causal explanations over psychosocial causal explanations [5]. Uncritical homage to the biopsychosocial model and the resultant eclecticism in practice has flourished due to a lack of philosophical discourse on what pluralism of perspectives entails [11]. The diagnostic inflation of recent decades has occurred in a void of understanding of the pragmatic functions served by diagnoses for patients, physicians, and society at large [12].

It has been our experience that most trainees and psychiatrists struggle with a recognizable set of philosophical problems but lack the conceptual tools to address them in a meaningful way. Aftab et al. [7] have reported that in a survey of psychiatry residents at one US institution, 65.2% endorsed wrestling with conceptual and philosophical questions related to psychiatry, but only 4.3% indicated that residency training had adequately prepared them to address these intellectual challenges. While there is a tendency to dismiss conceptual issues as being inapplicable to clinical work and research, these matters are of unarguable relevance in that they provide the guiding framework within which clinicians and investigators operate. Psychiatrists at the highest level of the field have struggled with such questions over the years. Robert Spitzer [13–15] and Allen Frances [16, 17], chairmen of the DSM-III and DSM-IV taskforces, respectively, for instance, have written extensively on the conceptually complex nature of their work and the philosophical approaches they adopted to bring about the modern DSM revolution. Trainees are often surprised to discover when they engage with these writings that behind the scientific veneer of diagnostic classification there exists much conceptual uncertainty.

Psychiatry deals with an astonishingly wide range of phenomena, from individual genes to first-person experiences to society as a whole. Integrating these diverse levels of complexity and explanation requires a robust conceptual framework. Furthermore, how we conceptualize human distress is not simply arm-chair hair-splitting; it has a demonstrable, real-life impact on the experiences of the billions of suffering people worldwide. This imposes a moral responsibility on the field that cannot be dismissed. Conceptual competence must become an obligatory outcome of psychiatric education and training.

What Is Conceptual Competence?

We define conceptual competence in the context of healthcare as the transformative awareness of the ways by which background conceptual assumptions held by clinicians, patients, and society influence and shape aspects of clinical care such as pursuit of care, presentation of problems, assessment, diagnosis, treatment, and attitudes toward each of the foregoing. These philosophical preconceptions are related to implicit notions of health and disease, causal explanations, and the relation of mind to body, among others.

Elements of Conceptual Competence

There are four elements of conceptual competence. "Conceptual assumptions and conceptual questions" entail making explicit the implicit conceptual assumptions and corresponding conceptual questions that influence diagnosis and clinical interactions. "Conceptual tools" refer to developing a philosophical vocabulary and acquiring familiarity with relevant arguments and frameworks with which to examine conceptual assumptions in a rigorous and systematic fashion. "Conceptual discourse" requires examining in an organized manner the merits (logical, ethical, etc.) of the various responses to conceptual questions relevant to the institution and practice of psychiatry. "Conceptual humility" involves developing recognition of the tentative nature of scientific and philosophical formulations and of the value of pluralism in assessments of them. These elements are described in more detail below.

Conceptual Assumptions and Conceptual Questions

Human emotion, cognition, and behavior are extremely complex, and we always approach them with preconceived notions and theoretical constructs, whether these are recognized or unrecognized. Examining these tacitly operating beliefs is imperative because they affect understandings of and attitudes toward psychological distress. Table 1 lists some of the most common and consequential conceptual assumptions and associated questions in contemporary psychiatric practice and discourse.

Conceptual Tools

In order to examine the conceptual assumptions and answer conceptual questions that underlie psychiatric theory and practice, trainees and practitioners need to develop a set of tools that will enable them to conduct such examination. The nature of the subject matter requires acquisition of the appropriate

Table 1 Conceptual assumptions and corresponding conceptual questions

Assumptions	Questions
Ontology and nosology	
1. Mental disorders are "real" entities that exist in nature, as opposed to practical categories created by humans to make sense of human suffering.	1. What is the nature of diagnostic constructs in psychiatry, and how do we understand the question of validity in this context?
2. Mental disorders are brain diseases and thus neuroscientific research will eventually—if it has not already—revolutionize clinical psychiatric diagnosis and treatment.	2. What does it mean to assert that "mental illnesses are brain diseases"?
3. There is a principled, scientific distinction between ordinary human distress (or "problems in living") and mental disorders.	3. How do (or should) we define "disorder" in psychiatry, and what are the potential problems of medicalization of human distress?
Mind/body distinction	
1. Every mental process corresponds to a specific physical process in the brain.	1. In what ways can we conceive of the relation between the mind and the brain in light of developments in neuroscience and philosophy of mind?
2. Some psychiatric syndromes are "biological" (implying that "biological" therapies are indicated because they correct abnormalities that are causal), while others are "psychological" (implying that "psychological" therapies are indicated).	2. How can philosophical contributions to the question of the relation between the mind and the brain inform psychiatric thinking, discourse, and practice?
3. Some psychiatric syndromes are "organic" (reflective of processes in the substance of the brain), while some are "functional" (reflective of processes in the mind).	3. How or why is psychiatry distinguished from neurology and from other specialties, and what should be made of that separation?
Causation and explanation	
1. A DSM diagnosis provides a causal explanation of experiences (for instance, telling a patient "You are anxious because you have generalized anxiety disorder").	1. How are the categories "description," "explanation," and "causation" distinguished from one another, and how do these distinctions apply in psychiatry?
2. "Biological" explanations of psychiatric conditions are privileged, as more fundamental and thereby more informative, over "psychological," "social," "political," "economic," etc. explanations.	2. In what ways is "reductionism" (the assumption that lower-level explanations are necessarily superior) valid in psychiatry?
3. The biopsychosocial model represents the most coherent and useful theoretical framework we have in psychiatry.	3. What are the philosophical underpinnings of the biopsychosocial model, and is it the only (or best) way of employing "explanatory pluralism"?
Ethics and values	
1. Value judgments might have influenced psychiatry in the pre-DSM-III era, but psychiatric diagnoses are now scientific constructs void of value judgments.	1. How are DSM diagnostic categories formulated, and what role do social and historical factors and value judgments play in that process?
2. Criticisms of psychiatry by the consumer/survivor/ex-patient community result primarily from misunderstandings of the need for (involuntary) psychiatric care, or of the validity and benefits of the medical model of human distress.	2. What are the potential implications of psychiatric theory and practice for human autonomy and dignity and, to the extent that there are adverse ones, how can they be mitigated?
3. The interests of the psychiatric profession, the pharmaceutical industry, and the public are all aligned to help people who are suffering. Concerns about potential conflicts of interest have ensured that protections are now in place to prevent them.	3. What is "institutional corruption" and how does it apply to psychiatry?

philosophical vocabulary and familiarity with commonly invoked distinctions, arguments, and conceptual frameworks.

Here, we present two illustrative examples of trainee-friendly philosophical distinctions, arguments, and thought experiments as methods of conceptual analysis. These are not intended merely as examples of conceptual problems in psychiatry but, rather, examples of tools that can be transferred to a wide variety of questions.

As one example, in a classic article discussing the nosological status of homosexuality, Robert Spitzer addresses the view that determination of a "biological cause" cannot answer the question of whether homosexuality (or, by extension, any human characteristic) should be considered a disorder. He writes: "Often in discussions of this kind a hope is expressed that some biological 'abnormality,' such as an endocrine or genetic disturbance, will be discovered and will

resolve the issue once and for all. It is hard to see how this would answer the question any more than would knowledge of the biological cause or antecedents of left-handedness (surely there must be one) indicate whether that condition should be regarded as a normal variant or pathology." [13]

The reasoning goes that merely demonstrating the presence of a biological foundation is not sufficient to conclude that the characteristic in question represents "disorder" because what is missing is an account of the sorts of biological differences that constitute "disorder." Another generalized lesson here is that to identify an abnormality or dysfunction by virtue of having demonstrated a "biological" difference gets the reasoning reversed. One needs to show that the "biology" is actually malfunctioning, rather than working backward from the assertion that the phenotype is dysfunctional to the conclusion that its material (biological) substrate therefore must itself be dysfunctional. The fallacious argument that "psychiatric condition X has such and such underlying biological causes, therefore it is a disease" tends to be credited by trainees in discussions of disorder status. Familiarity with the line of reasoning outlined above helps move the discussion to more valid arguments and understandings of the core, and highly consequential, construct of "disorder" in psychiatry.

As another example, Kenneth Kendler and Peter Zachar offer a thought experiment to help illuminate the contingency of psychiatric classification. They ask us to imagine: what if we were to rewind the tape of human history to 10,000 years ago and let history unfold again from that point forward. The history in this replay would not be the same, as historical events are highly influenced by random, unrepeatable influences. Imagine, however, that something like the field of psychiatry nevertheless emerges: "At some point, this field would want a formal nosology and would create one. The key question is, how much would that nosology resemble the current DSM? There are too many random factors to be confident that a 'tape rewind' would produce something closely resembling our current system. But would it be completely different?" [18]

For a classification that approximates the natural order of the universe—the periodic table of elements being a good example—one can argue that with enough scientific development, all histories would eventually converge on something resembling the periodic table. Can the same be said of psychiatric classification? This thought experiment helps trainees overcome the unwarranted reification of DSM constructs and helps them understand how our nosology is heavily influenced by particular individuals, major historical events, development of new treatments, changing social values, etc. This recognition of the centrality of social context and historical contingency provides a fertile starting point for a discussion of the nature and purpose of psychiatric classification.

Conceptual Discourse

After the recognition of relevant conceptual assumptions, acquisition of appropriate vocabulary, and familiarity with theoretical frameworks comes the discourse itself. Conceptual competence requires the dynamic exchange and discussion of ideas. Conceptual discourse is an active skill, not knowledge that can be acquired passively. To acquire conceptual competence, trainees need to be able to examine responses to conceptual questions using conceptual tools in the training environment.

Teaching such philosophical discourse to trainees can be aided by the use of conversations and debates that exist in the literature. Examples of some such discussions that are of educational value include Jerome Wakefield's exposition of the notion of "harmful dysfunction" [19], along with critical commentaries by Jablensky, Bolton, Fulford, Thornton, and Brulde [20–23] in World Psychiatry; commentaries by a series of individuals on the epistemology and definition of mental disorder in response to commentaries by Allen Frances in Philosophy, Ethics, and Humanities in Medicine [24]; and commentaries on Peter Zachar's book, A Metaphysics of Psychopathology, along with the author's responses, in the Bulletin of the Association for the Advancement of Philosophy and Psychiatry [25].

Conceptual Humility

Philosophical problems are rarely solved or settled conclusively. Developing the virtue of conceptual humility involves the realization that these conceptual issues are highly complex and despite our best efforts often remain unsettled, that we are always operating within a philosophical framework, and that all philosophical frameworks have their limitations. To adopt conceptual humility is to learn to believe and act thoughtfully despite lack of conclusive certainty. Development of conceptual humility in psychiatric training might usefully be coupled with the training program requirement in the history of the discipline, which reveals its many conceptual turns, blind alleys, and outright failures.

There are aspects of medical education in the USA which may hinder the development of conceptual humility given the emphasis on various examination scores (MCAT, USMLE, etc.) and the testing environment in which students are conditioned to think that questions have settled answers. The attitude necessary for conceptual humility may be difficult for some trainees to appreciate. Because clinical practice inherently requires grappling with uncertainty and "unknown unknowns," one hopes that good clinical training would help ameliorate the influence of the testing environment. Nonetheless, instilling the spirit of conceptual humility may be the most important and challenging task in the instruction of conceptual competence.

Table 2 Sample list of suggested readings for use during didactics, group discussions, or reading electives

Stanford Encyclopedia of Philosophy
- *Philosophy of Psychiatry*: https://plato.stanford.edu/entries/psychiatry/
- *Concepts of Health and Disease*: https://plato.stanford.edu/entries/health-disease/
- *Mental Illness*: https://plato.stanford.edu/archives/spr2018/entries/mental-illness

Academic texts
- Paul R. McHugh and Phillip R. Slavney. *The Perspectives of Psychiatry.* John Hopkins University Press, 1998
- John Sadler. *Values and Psychiatric Diagnosis.* Oxford University Press; 2005.
- K.W.M. Fulford, Tim Thornton, and George Graham (eds). *Oxford Textbook of Philosophy and Psychiatry.* Oxford University Press; 2006
- S. Nassir Ghaemi. *The Concepts of Psychiatry: A Pluralistic Approach to the Mind and Mental Illness.* Johns Hopkins University Press; 2007
- Derek Bolton. *What is Mental Disorder?: An Essay in Philosophy, Science, and Values.* Oxford University Press; 2008
- Kenneth Kendler and Josef Parnas. *Philosophical Issues in Psychiatry II: Nosology.* Oxford University Press; 2012
- K.W.M. Fulford et al. (eds). *The Oxford Handbook of Philosophy and Psychiatry.* Oxford University Press; 2013
- George Graham. *The Disordered Mind: An Introduction to Philosophy of Mind and Mental Illness* (2nd ed). Routledge; 2013
- Peter Zachar. *A Metaphysics of Psychopathology.* MIT Press; 2014
- Kenneth Kendler and Josef Parnas. *Philosophical Issues in Psychiatry: Explanation, Phenomenology, and Nosology.* John Hopkins University Press; 2015
- Douglas W. Heinrichs. *Model-Based Science and the Ethics of Ongoing Treatment Negotiation.* In: *The Oxford Handbook of Psychiatric Ethics.* Oxford University Press; 2015
- Sandra Steingard (Ed). *Critical Psychiatry: Controversies and Clinical Implications.* Springer; 2019
- Serife Tekin and Robyn Bluhm (Eds). *The Bloomsbury Companion to Philosophy of Psychiatry.* Bloomsbury Publishing, 2019
- Daniel Lafleur, Christopher Mole, and Holly Onclin. *Understanding Mental Disorders: A Philosophical Approach to the Medicine of the Mind.* Routledge; 2019

Popular books
- Gary Greenberg. *The Book of Woe: The DSM and the Unmaking of Psychiatry.* Penguin, 2013
- Allen Frances. *Saving Normal.* William Morrow & Co, 2013
- Anne Harrington. *Mind Fixers: Psychiatry's Troubled Search for the Biology of Mental Illness.* WW Norton & Company, 2019
- Susannah Cahalan. *The Great Pretender.* Grand Central Publishing, 2019

Articles and commentaries
- Thomas Szasz. *The Myth of Mental Illness. American Psychologist.* 1960;15(2):113
- David L. Rosenhan. On being sane in insane places. *Science.* 1973;179(4070):250–8
- George Engel. The need for a new medical model: a challenge for biomedicine. *Science.* 1977; 196: 129–136
- Samuel B. Guze. Nature of psychiatric illness: Why psychiatry is a branch of medicine. *Comprehensive Psychiatry.* 1978;19(4):295–307
- Kenneth Kendler. Toward a philosophical structure for psychiatry. *American Journal of Psychiatry.* 2005;162(3):433–40
- Allan V. Horwitz. Transforming normality into pathology: the DSM and the outcomes of stressful social arrangements. *Journal of Health and Social Behavior.* 2007;48(3):211–22
- Jerome Wakefield. The concept of mental disorder: diagnostic implications of the harmful dysfunction analysis. *World Psychiatry.* 2007;6(3):149
- Peter Zachar and Kenneth Kendler. Psychiatric disorders: a conceptual taxonomy. *American Journal of Psychiatry.* 2007;164(4):557–65
- Nassir Ghaemi. The rise and fall of the biopsychosocial model. *The British Journal of Psychiatry.* 2009;195(1):3–4
- Thomas Szasz. The myth of mental illness: 50 years later. *The Psychiatrist.* 2011;35(5):179–82

Table 2 (continued)

- Allen Frances. DSM in philosophyland: Curiouser and curiouser. In: Making the DSM-5: *Springer*; 2013. pp. 95–103
- James Phillips et al. The six most essential questions in psychiatric diagnosis: a pluralogue part 1: conceptual and definitional issues in psychiatric diagnosis. *Philosophy, Ethics, and Humanities in Medicine.* 2012;7(1):3
- Michael First and Jerome Wakefield. Diagnostic criteria as dysfunction indicators: bridging the chasm between the definition of mental disorder and diagnostic criteria for specific disorders. *The Canadian Journal of Psychiatry.* 2013;58(12):663–9
- Richard Brouillette. Why Therapists Should Talk Politics. *New York Times.* March 15, 2016. https://opinionator.blogs.nytimes.com/2016/03/15/why-therapists-should-talk-politics/
- Awais Aftab. Conversations in Critical Psychiatry. Interview series for *Psychiatric Times.* 2019. https://www.psychiatrictimes.com/q-and-a
- Kenneth Kendler. From Many to One to Many—the Search for Causes of Psychiatric Illness. *JAMA Psychiatry.* 2019. doi:https://doi.org/10.1001/jamapsychiatry.2019.1200

Journals and newsletters
- *Philosophy, Psychiatry, & Psychology* (PPP)
- *Bulletin of the Association for the Advancement of Philosophy and Psychiatry*
- *Philosophy, Ethics, and Humanities in Medicine*

We have provided individual examples for teaching various conceptual elements above, but let us consider a brief integrated example to bring these elements together. This example is derived from the work of Kenneth Kendler [10]. Reification of DSM categories refers to the notion that people tend to interpret them as discrete entities that exist in nature (conceptual assumption). Conceptual analysis reveals, however, that while DSM diagnostic criteria might usefully *index* clinical syndromes, these criteria do not actually *constitute* disease entities as commonly conceived (conceptual distinction) [10]. Ignoring this distinction leads to a problematic tendency in clinical practice and research to act as if DSM criteria are all that really matter. Recognizing this distinction invites conceptual discourse on how to explore the diversity of painful human experiences while acknowledging the nature and limitations of DSM diagnostic constructs. This discourse comes with the conceptual humility that psychiatric conditions are philosophically complex entities whose nature is not easy to understand despite our best scientific efforts.

Formats for Conceptual Competence Training

Training in conceptual competence can employ a variety of formats such as lecture series, discussion groups with pre-assigned readings, journal clubs, and reading electives.

Discussion groups with pre-assigned readings have the advantage of placing learners in an active role and would be a preferred format for teaching the skill of conceptual discourse. The challenge for instructors lies in the appropriate selection

of readings and in guiding trainees through the discussions. Many residency programs offer "reading electives" by which residents can take 1 or 2 weeks away from their clinical duties for the purpose of perusing curated reading materials, usually accompanied by regular discussions with faculty supervisors.

Examples from the published literature that can be used to teach conceptual competence include a course on philosophy of psychiatry designed by Aftab et al. [7] for psychiatry residents, which utilizes lectures, readings, and discussion groups, and a course formulated by Lloyd Wells [26] that employs case-based discussions and readings and combines curricular topics of child and adolescent psychiatry with issues from ethics, esthetics, politics, logic, ontology, and epistemology relevant to each topic.

Discussion groups and reading electives, in particular, also present opportunities for interdisciplinary collaboration with faculty members from departments of philosophy or bioethics, if a residency program is part of or affiliated with a university with such departments. There are other novel ways by which such interdisciplinary collaborations can happen as well. One innovative example reported in literature is that of a collaborative consultation model which involves an ethicist routinely spending time with an attending psychiatrist as he/she works with psychiatric trainees in multiple clinical settings with interactive discussions in real time [27]. Such models could also be developed for conceptual competence.

Table 2 presents recommendations for trainee-friendly readings that can be used for discussion groups and reading electives. It is important to point out that the arguments and conclusions in these readings are not intended to be accepted uncritically; these readings are starting points for rigorous and critical discussions, and students should be actively encouraged to challenge their contents. For instance, the recommendations to include works by Thomas Szasz, Allen Frances, and Anne Harrington are meant to stimulate philosophical engagement with the proposed ideas rather than passive acceptance.

Aside from anecdotal reports from individual psychiatrists regarding how their familiarity with philosophical issues has influenced their practice of psychiatry [17, 28–30], there is unfortunately little to no research on how conceptual competence training affects psychiatric practice and clinical outcomes. Aftab et al. have reported that after a didactic course on philosophy of psychiatry at one US residency program, 82% of respondents agreed or strongly agreed that the course had made them aware of philosophical and conceptual issues related to psychiatry of which they had not previously been cognizant, and the same percentage agreed or strongly agreed that philosophy of psychiatry should be part of psychiatry residency curricula [7]. Going forward, it will be important to conduct research to determine the impact of conceptual competence training on attitudes and practices. Such data may help demonstrate the importance of this training and help shape its design.

Compliance with Ethical Standards

Disclosures On behalf of all authors, the corresponding author states that there is no conflict of interest.

References

1. Ghaemi SN. Pluralism in psychiatry: Karl Jaspers on science. Philos Psychiatry Psychol. 2007;14(1):57–66.
2. Banner NF, Thornton T. The new philosophy of psychiatry: its (recent) past, present and future: a review of the Oxford University Press series International Perspectives in Philosophy and Psychiatry. Philos Ethics Humanit Med. 2007;2(1):1–14.
3. Szasz TS. The myth of mental illness. Am Psychol. 1960;15(2): 113.
4. Steingard S. Critical psychiatry: controversies and clinical implications. Cham: Springer; 2019.
5. Gardner C, Kleinman A. Medicine and the mind-the consequences of psychiatry's identity crisis. N Engl J Med. 2019;381(18):1697–9.
6. Althoff RR, Waterman GS. Commentary: psychiatric training for physicians: a call to modernize. Acad Med. 2011;86(3):285–7.
7. Aftab A, Nassir Ghaemi S, Stagno S. A didactic course on "philosophy of psychiatry" for psychiatry residents. Acad Psychiatry. 2018;42(4):559–63.
8. Karter JM. An ecological model for conceptual competence in psychiatric diagnosis. J Humanist Psychol 2019:0022167819852488. 1–26. https://doi.org/10.1177/0022167819852488.
9. Schwartz ZH. Psychiatric skepticism in medical education: why we need philosophy. Acad Psychiatry. 2019;43(4):461–3.
10. Kendler KS. DSM issues: incorporation of biological tests, avoidance of reification, and an approach to the "box canyon problem". Am J Psychiatr. 2014;171(12):1248–50.
11. Ghaemi SN. The rise and fall of the biopsychosocial model. Br J Psychiatry. 2009;195(1):3–4.
12. Bolton D. What is mental disorder? An essay in philosophy, science, and values: Oxford University press; 2008.
13. Spitzer RL. The diagnostic status of homosexuality in DSM-III: a reformulation of the issues. Am J Psychiatry. 1981;138(2):210–5.
14. Spitzer RL. Harmful dysfunction and the DSM definition of mental disorder. Journal of Abnormal Psychology. 2019;108(3):430–432. https://doi.org/10.1037/0021-843X.108.3.430.
15. Spitzer RL, Endicott J. Medical and mental disorder: proposed definition and criteria. In: Spitzer RL, Klein DF, editors. Critical issues in psychiatric diagnosis. New York: Raven Press; 1978.
16. Frances A. Saving normal: an insider's revolt against out-of-control psychiatric diagnosis, DSM-5, big pharma and the medicalization of ordinary life. New York: William Morrow & Co; 2013.
17. Frances A. DSM in philosophyland: curiouser and curiouser. Making the DSM-5: Springer; 2013. p. 95–103.
18. Kendler K, Zachar P. The incredible insecurity of psychiatric nosology. In: Kendler K, Parnas J, editors. Philosophical issues in psychiatry: explanation, phenomenology, and nosology. Baltimore: John Hopkins University Press; 2015.

19. Wakefield JC. The concept of mental disorder: diagnostic implications of the harmful dysfunction analysis. World Psychiatry. 2007;6(3):149–56.

20. Bolton D. The usefulness of Wakefield's definition for the diagnostic manuals. World Psychiatry. 2007;6(3):164–5.

21. Brulde B. Wakefield's hybrid account of mental disorder. World Psychiatry. 2007;6(3):163–4.

22. Fulford KM, Thornton T. Fanatical about "harmful dysfunction". World Psychiatry. 2007;6(3):161–2.

23. Jablensky A. Does psychiatry need an overarching concept of "mental disorder"? World Psychiatry. 2007;6(3):157–8.

24. Phillips J, Frances A, Cerullo MA, Chardavoyne J, Decker HS, First MB, et al. The six most essential questions in psychiatric diagnosis: a pluralogue part 1: conceptual and definitional issues in psychiatric diagnosis. Philos Ethics Humanit Med. 2012;7:3.

25. Bulletin of the Association for the Advancement of Philosophy and Psychiatry. 2017;4(1):1–57 (https://philosophyandpsychiatry.files.wordpress.com/2014/09/aapp-bulletin-vol-24-1-7.pdf).

26. Wells LA. Philosophy and psychiatry: a new curriculum for child and adolescent psychiatry. Acad Psychiatry. 2002;26(4):257–61.

27. Potter NN, El-Mallakh RS. Collaborative integration of ethics education. Acad Psychiatry. 2017;41(4):556–7.

28. Ghaemi SN. The concepts of psychiatry: a pluralistic approach to the mind and mental illness. Baltimore: Johns Hopkins University Press; 2007.

29. Waterman GS. Why I am not a psychiatrist. Bulletin of the Association for the Advancement of Philosophy and Psychiatry. 2019;26(1):2–3. (https://philosophyandpsychiatry.files.wordpress.com/2019/07/aappbulletin-vol-26-1-2019-.pdf)

30. Kendler K, Zachar P. Toward a philosophical approach to psychiatry: the writings of Kenneth Kendler. Newcastle upon Tyne: Cambridge Scholars Publishing; 2019.