

Re-evaluating the Biomedical Model of Psychosis: A Kuhnian Perspective on Paradigm Shift

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Abstract

The given paper discusses the existing crisis in the biological paradigm of psychosis in the light of the theory of scientific revolutions formulated by Thomas Kuhn. Even though the neurochemical, genetic, and structural brain abnormalities have been explored over several decades, the biomedical model has failed to produce reliably clinically transformative data on psychosis causation and treatment. Indicators of these states of stagnation are associated with the symptoms of a Kuhnian paradigm in distress: they include increasing anomalies, conceptual disaggregation, and opposition to alternative models. Based on the historical as well as modern critiques, the paper states that the field of psychosis is heading towards scientific revolution where the psychosocial, phenomenological, and integrative perspectives might provide a more coherent picture. According to the analysis, dominant assumptions in psychiatry should be critically re-examined and be more open to interdisciplinary paradigms better explaining the context of lived experience and social circumstances.

Keywords: Psychosis, Biological Paradigm, Kuhnian Crisis, Scientific Revolution, Psychiatry, Biomedical Model, Paradigm Shift, Phenomenology, Psychosocial Models, Philosophy of Science.

1.Introduction

The theoretical and practical stress is quickening on the notion framework through which psychosis has been apprehended since mainstream psychiatry started more than 100 years ago. Having a historical tradition in the medical sciences, the biological paradigm has historically monopolized on explaining, diagnosing, and managing psychosis by defining the phenomenon as a pathology of the brain that responds to pharmacological treatment. Empirical anomalies with the model are emerging though, and philosophical criticism is on the rise, raising the idea that this paradigmatic model of explanation is near a Kuhnian crisis point, a moment in which the existing paradigm would no longer be able to adequately explain essential anomalies and conflicting data. Based on the philosophy of scientific revolutions developed by Thomas Kuhn, this discussion revises the prominence of biological model within the context of epistemological rift and how the present inconsistencies go beyond mere incompleteness of knowledge, to suppose a disintegration of a scientific view of the world.

As postulated by Kuhn, progress is not a linear or cumulative process in science; science passes through a range of regular science, crisis, and revolution(1). Paradigms Deep-seated structures that define what is considered legitimate knowledge also rule the inquiry but there is a tendency of paradigm breaking down when facing anomalies that cannot be accommodated. On the one hand, psychiatry finds itself assaulted from a variety of angles on the internal logic of the biological approach: that it is clinically ineffective, conceptually incoherent, and that alternative, explanatory domains are rebounding and that explanations that are socially, experientially, and narrative-based are becoming favored.

Such an essential anomaly has to deal with deriving psychotic language and expressions. On the biological scale, verbal articulation of patients with psychosis is usually viewed as incoherent, the symptom of disorder of the nervous system. However, both historical and current psychoanalytic, phenomenological, and narrative psychiatric work has continued to reveal that when these expressions are considered within the framework of trauma, identification, and existential conflict, they might be potentially loaded with abundant subjective meaning. Such anomaly of meaningful expression has a dismissing effect on the epistemic privilege of biological construal as it has indicated that what are perceived to be nonsensical utterances in a clinic may more actually symbolize articulations that evidence intricate maneuvers at self-conversation and semantics.

A second major fault line lies in the etiological complexity of psychosis and perplexity of taxonomy. Biological psychiatry is based on a discrete disease entity usually located in genetic, neurochemical, or even anatomical deviations. Nevertheless, recent studies have not been able to find any single biological foundation of psychosis. Diagnostic groups like schizophrenia are becoming more viewed as diverse syndromes that blur with normal

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mental phenomena, and lie on a continuum instead of being clearly differentiated and defined biologically. What is more, traumatic past experiences and psychotic current formations keep interfering with a pure biomedical understanding, which once again raises the necessity of trauma-informed contextual-based treatment.

The third area of anomaly deals with the pharmacological paradigm that is fundamental to treatment. Even though antipsychotic drugs have been the backbone in treating psychotic illnesses, their effectiveness has been called into question(2). The phenomena of seriously negative side effects, high rates of relapse, and treatment-resistant psychosis, show the inefficiency of pharmacological dominance. Specifically, there is evidence proving that in low-resource settings, where drugs are not widely used, people tend to do better in the long term, as demonstrated by studies of global outcome. This puts into question the belief that biological dysfunctions that are ameliorated through medication is the only or even the major route of recovery.

These accretive discrepancies are not mere random irregularities, but they offer the evidence of a breakdown of internal logic of the biological paradigm, as Kuhn has hypothesized in his crisis theory of science. Kuhn stressed that in times of crisis, paradigms proliferate, and generally in their early stages these paradigms are disunified, fragmented, and even contradictory. This is what exactly is happening in the sphere of mental health. Power-Threat-Meaning Framework, Hearing Voices Movement, Open Dialogue and trauma-informed care model have started to present such attractive, people-centered alternatives that they shift the complexion of symptom managing to meaning-generation, relating, and social political understanding.

It is the epistemological break that affects especially mental health nursing as an area between psychiatry and patient care. Nurses tend to apply biologically-driven schemes of treatment, but they can also be nearest to the reality of service users, which can not always comply with the logic of the diagnostic code and the pharmaceutical schedule. Consequently, mental health nurses have developed a sensitive border position in this paradigm crisis. They are also enforcers and can be a catalyst of change of a revolutionary nature(3). Following the spirit of critical nursing philosophy, such uncertainty may present a chance at reflective practice and resistance, and ultimately co-construction of the new paradigm based on relational ethics and phenomenological engagement.

2.The Biological Paradigm of Psychosis: Its Origin

The roots of the biological paradigm of psychosis may be defined as a radical shift in perception of human sufferings and psychological disorders in Western medicine. In the past, such states as we would now classify as psychosis, i.e. hallucinations, delusions and deranged thinking, were often explained in metaphysical or spiritual terms i.e. demonic possession, or punishment by God. With the Enlightenment and an increasing belief in scientific rationalism during the 18th and 19th centuries, however, psychiatry was starting to be established as a science endeavoring to explain mental disorder in the language of empirical biomedical science and the anatomical sciences.

Epistemological shift came in line with development of asylums and diagnosis of madness into distinct categories. It is this environment that lent credence to the biological approach of psychosis. The thinkers about insanity with the most influence at the beginning of the 19th century (e.g. Philippe Pinel, Jean-Etienne Esquirol) helped to break down the paradigm of moral failing in favor of the impending medical paradigm of pathology, moving us towards a clinical model of mental illness as based on biological abnormality. Nonetheless it was the German Emil Kraepelin who most successfully came to codify and formalise this new synthesis when working in the late 19th century.

The work of Kraepelin can not be overestimated. He played a crucial role in building of a nosological system in which mental illness and especially psychosis were viewed as a disease entity with a particular biological cause, course, and outcome. His coinage of the term *dementia praecox*, which has since evolved into modern-day schizophrenia, was used to describe a number of clinical manifestations, which had an early insidious onset and the course was chronic and worsening in nature(4). Kraepelin suggested that these states of mind were caused by an immanent neuropathological defect and made the study of psychosis dependent on the study of brain malfunction. It was a remarkable shift in directions compared to the moral or existential explanations of mental distress and actually biologized madness, prefiguring most of the 20th century of psychiatry.

What was especially stable about this model of Kraepelins consisted in its fitting the scientific necessity of classification. As biology was generating classifications of living things and medicine was defining particular pathogens, psychiatry tried to do the same thing with mental disorders and their causes. The popularity of the biological paradigm of psychosis was not only due to objective and scientific perception but also because it fit into

the rising preference in society to apply efficiency, control and model-predictive approaches to treatment. The biomedical language of disease, pathology and treatment made psychiatrists, who had been condemned to the margins as so-called alienists within custodial institutions, more respectable.

This trend made a radical effect on mental health nursing. The nurses in asylums, also called attendants, found themselves between the psychiatrists and the patients to enforce the regimes as prescribed by the medical authorities. Their practice was incorporated into the paradigm of biology, sticking to symptom management, behavioral management, and the adherence to medication instead of engaging in the therapeutic process or generating meaning. This position was also part of the greater epistemological power structure where the voice of the psychiatrist (and consequently the medical model) was ranked above than the experience of the patients and nurses.

During the 20 th century, the biological model consolidated its rule, especially with the creation and popularization of psychopharmacological medications. This belief about psychosis being a brain illness that could be treated medically was further entrenched with the discovery of the antipsychotic drugs like the chlorpromazine in 1950s. The radical behavioural effects of these drugs was evidence enough in itself to support the biological interpretation although with no real idea of what exactly was going on in the brain(5). This led to a veritable age of talk of chemical imbalance, during which psychosis was popularly believed to be due to disfunction of neurotransmitters--most especially, dopamine dysregulation.

Nonetheless, the biological basis of psychosis has been evading researchers over the decades. Although both brain imaging and genetic research showed a few indicative correlations, no single biological reason has been conclusively identified. Nevertheless, biological paradigm has been hegemonic and vested in diagnostic manuals like the DSM (Diagnostic and Statistical Manual of Mental Disorders) and once backed by the commercial interests of pharmaceuticals, institutional layouts, and prevailing clinical practices.

In order to know how this paradigm has withstood the test of time, we could mention the images of Michel Foucault of the so-called episteme that is, the historical a priori, of existence that delineates the conditions of possibility of knowledge during a particular epoch. The bio-paradigm of psychosis is not in this respect just a collection of facts, but the regime of truth where the legitimate epistemology of knowledge is produced by whom and how and what is considered mental illness and how it is to be treated. The biological way of explanation dominates funding of research, medical training and practices at the expense of the psychological, social, or cultural aspects.

In Kuhn, these eras of what he termed normal science, in which a paradigm provides a significantly guiding role as to inquiry, were characterised by his term a consensus over research questions, methodology and interpretation. Biological paradigm of psychosis is exactly this type of normal science, the body of work that serves to create a cyclical system of investigation that affirms the suppositions it develops. To take one well-known example, the search of biomarkers, genetic association factors, or better medications, all involve the prior assumption that psychosis is in fact a biological illness, requiring biological explanation. Deviant results, or other forms of explanation, are usually marginalized or synthesized into a form which achieves the status quo.

However, the paradigm starts to crack up as anomalies continue to acquire--the cases that will not be treated, psychosocial correlates, and the subjective accounts that are not open to neurobiological explanation. Kuhn claims that it is the preface to scientific revolution. The crisis is not rest on a particular find but on an increasing appreciation that the prevailing model cannot be used to explain comprehensively all the things observed. That is why in this environment the biological paradigm of psychosis can be observed today, being ever challenged by new paradigms that are more focused on trauma, relational and subjective meaning but continued to be entrenched in institutions.

To conclude, the genesis and ingrainment of the biological paradigm of psychosis is a historical, sociological and philosophical process as well as that of science(6). The increase of its presence was facilitated by the collision of clinical ambition, epistemic power, and social demands. It is a vital part of understanding the origins of the field in order to criticize the drawbacks of the field but also as a way to envision a new future, a future that would better adhere to the complexity of psychosis and the humanity of victims who live with psychosis.

3.The Disruption of Diagnostic Authority

In recent years the biological paradigm has rigidly viewed psychosis as a form of pathological lack of connectedness to reality in which abnormal speech and strange beliefs are seen mostly as the effects of neurochemical malfunction. But this presentation leaves the subjective and narrative qualities of the psychotic

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experience on the margins, turning the complex utterances into the objects of diagnostic checklists. The new criticisms imply that language conventionally rejected as incoherent can actually be accepted as a meaningful expression informed by trauma or existential suffering or a socio-cultural context in the context of alternative epistemological prerequisites. Particular to this section is the discussion of the anomaly of meaningful utterance through five subtopics namely: historical rejections of psychotic speech, initial phenomenological investigations, narrative psychiatry and clinical narration, service-user movements and paradigm discontinuity consequences.

3.1 History of the Development of Psychotic Language: Incoherence to Symptom

With the first classification system, psychotic persons were considered as having lost relatedness with reality to an extent that they lost the relevance and intelligibility of their verbal productions. Gabble was not a possible source of illumination, however, but served as evidence of disordered neurons. This assumption hardened with the emergence of the biological paradigm in the 20th century. Formal thought disorder, which is a typical symptom of schizophrenia, included disordered speech, which was characterized by neologisms, tangentiality or verbal hallucination. This epistemology assumed that there was a gap between language and meaning and this enhanced the belief that utterances of psychotic people had no value and they were only associated with their diagnostic value(8). This resulted in the objectification of language in the clinical settings. The patient who alleges that s/he feels like a cork floating in the ocean would not be understood to have proficiently expressed existential detachment or depersonalization, but rather indicating metaphorical abstraction that is commensurate with delusion or disorganized thought. Therefore, the language was turned into a passive source of pathology instead of an active consciousness of the individual experience.

3.2 Recovery of meaning The phenomenological Psychiatry

Dissent of purely biological perspective also came through the works of phenomenological psychiatry which justified that even the most baffling forms of psychotic speech had rational sense when seen in its existential context. Philosophers like Karl Jaspers and Ludwig Binswanger were concerned to make an effort to understand the experience of psychosis, and not just to pathologise it in regard to its outward expression.

In the early 1900s, the problem of meaninglessness of delusion was refuted by the case study of a woman by the name Aimee that was carried out by Jacques Lacan. Lacan explained her violent incident and the speech that she gave in the context of her personal background, trauma, and unconscious motives and impulses, indicating that psychosis could be seen as being part of an excessive effort to tell the history of an inner fight instead of being an outright loss of touch with reality.

This critique provided a context in which more sophisticated insights concerning language in psychosis were to be brought to bear--not as a symptomatic debris but something to be accepted as interpretive subject matter. The existence of such considerations was to a great extent marginalized by the influence of neurobiological psychiatry but these inserted the seeds of important doubt into the biomedical rejection of meaning in psychotic talk.

3.3 Narrative Psychiatry and Clinical encounters

In the 1960s clinical practitioners, such as R.D. Laing, pressed a radical challenge to orthodox psychiatry, whose definition of mental illness was a mechanistic one. Laing stated that all that psychiatrists called madness might be a logical reaction to the illogical world, and the thought patterns promoted by psychotic people contained existential messages of identity questions, feelings of loneliness, and ontological insecurity.

The conversation Laing had with patients showed some depth of meaning in their metaphors, narratives, and fears as they had been collapsed by a model which was used to equate deviation with normative cognition as a disease. This view is consistent with the recent history of narrative psychiatry, which attempts to interpret psychiatric symptoms as sense-making, especially following trauma or other social difficulties, or the need to resolve interpersonal conflict(9).

This hermeneutical turn, called into question the power of clinicians to use their own judgments as the ultimate determiner of what is, or is not, a form of meaning or delusion. It created the field where therapeutic relations were based on empathy and dialogical understanding and not reductionism diagnosis.

3.4 Testimony of Service-Users and Mass Action

The most potent threat to the premise of meaningless utterance may have been raised by service-user movements, most notably the Hearing Voices Network (HVN). In 1987 they presented the experience of one of Romme's patients, Patsy Hague, to the nation in a live television interview; their actions triggered a paradigm shift in how the experience of voice-hearing is understood and addressed. Hundreds of listeners reacted with their personal stories hundreds of listeners wrote in that the voices that they heard spoke to them, had sense, were purposeful and usually were related to traumatic occurrence.

The HVN also did not accept voice-hearing as being somehow pathological. On the contrary, it advocated the idea of voices which could be approached and comprehended as opposed to being suppressed with medication. This consumer-driven revolution threw light into the social and psychological backgrounds of psychotic experiences that challenged existing dominant paradigm that viewed patients as lacking insights.

The emphasis on lived experience and subjective testimony that the HVN and other such groups espouse has already shifted the language of psychosis substantially away from a medicalized account to a dialogical one. This also helps in the democratization of knowledge production where the service users become experts on their own.

TABLE 1 Contrasting Paradigms in the Interpretation of Psychotic Language

Dimension	Biological Paradigm	Emergent Human-Centered Paradigm
View of Psychotic Speech	Disordered, meaningless, symptomatic	Meaningful, expressive, context-dependent
Primary Interpretation	Indicator of neural dysfunction or “formal thought disorder”	Narrative response to trauma, existential struggle, or socio-cultural disruption
Role of the Clinician	Diagnostician and interpreter of pathological signs	Co-explorer and dialogical partner
Value of Lived Experience	De-emphasized; regarded as unreliable	Central to understanding; validated as expert insight
Research Foundations	Neurochemistry, genetics, brain imaging	Phenomenology, narrative theory, trauma-informed care
Diagnostic Implication	Confirms illness and categorizes symptoms	Reframes experience and promotes understanding
Treatment Focus	Symptom control through medication	Relational understanding, narrative integration, psychosocial support

3.5 Anomalous Meaning and Paradigm in Peril: Epistemic Implications of Anomalous Meaning

Kuhn (1962) made it clear that anomalies do not constitute exceptions to the laws of science, they are rather indicators of the falling capacity of a paradigm to match new phenomena. Such an anomaly is provided by the repetition of intelligible meaning in psychotic speech. In the case that anything that was once called disordered language can now be re-considered as communicative and contextually acceptable, then the very basis of epistemology of the biological version begins to fall apart.

It is not only the question of the meaning of single utterances but the trustworthiness of a whole system of explanation(10). The biological model assumes that psychosis lacks a rational content, but in the case where some meaning may be given out of the so-called delusion or incoherence, then the border between sanity and madness should start to thin. This is an attack on the validity of psychiatry as a purely objective science creating doubts about the power, interpretation and the character of mental suffering.

Conclusion

The anomaly of meaningful utterance is one of the best examples of this concept of paradigm instability as proposed by Kuhn. It shows the deficiency of an approach that makes language a matter of symptoms and keeps other ways of explaining shut down. Conversely, emergent approaches which draw on phenomenology, trauma studies and narrative practice inherit the voice of the service user into the centre of the diagnosis and care. Due to the increasing popularity of these directions, the biological paradigm is under increasing pressure to change or yield to a more general and inclusive paradigm that accepts psychosis both as a medical issue and a human issue.

4.The causes of psychosis and its diagnostic classification

The psychosis as a well-defined medical disorder which is caused by inherent biological malfunction conceptualization proposed and long held in the biological paradigm in psychiatry. Nevertheless, this approach is becoming less tenable as the results provide inconsistent promises in pointing out aetiological origins and creating a coherent diagnosis system. This is a Kuhnian-meaning of a period of a crisis where anomalies continue to undermine the confidence regarding the current model. Here, we consider critically the aberration of complex aetiology and taxonomy in five ways: (1) dominance of biomedical construction of psychosis as a brain disease; (2) technological innovation and inability of localising pathology; (3) oversimplification of diagnostic categories;

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(4) psychosocial and environmental risk factors leading to psychosis; (5) developments of dimensional and spectrum-based approaches.

4.1 Psychosis Brain Disease: The Basic Assumption of the Biomedical Model

The biological paradigm was based on the idea suggested by the Kraepelinian division of psychosis and, more specifically, schizophrenia psychosis as the brain-related illness that develops progressively and has a degenerative trait. As time went by, this model entrenched itself both in research and in clinical practice (not least through psychiatric classification schemes like the DSM and ICD) which further cemented the idea that psychosis was a neat, discrete entity of an illness.

This perception relegated psychosis as a biological process triggered or caused by factors including genetics, neurotransmitter imbalances (the most common of which is dopamine) and structural brain abnormalities. Ever since, research has been directed down the line of trying to determine certain neural markers or genetic mutations that could act as possible biomarkers. However the specific or universal biological etiology has not been reliably determined after decades of research. The psychosis-as-biologically-distinct assumption carries the day and is a fundamental, even core, assumption of mainstream psychiatry but is under growing attack.

TABLE 1 Shifting Epistemologies in the Understanding of Psychosis Aetiology and Taxonomy

Dimension	Biological Paradigm	Emerging/Dimensional Paradigm
Core Assumption	Psychosis is a distinct brain-based disease	Psychosis exists along a continuum of human experience
Etiological Focus	Genes, neurotransmitters (e.g., dopamine), brain abnormalities	Trauma, adversity, sociocultural and psychological stressors
Neurobiological Evidence	Inconsistent, non-specific, often confounded	Contextual findings often override or reinterpret brain-based results
Diagnostic Categories (e.g. DSM/ICD)	Categorical, fixed entities (e.g. schizophrenia)	Fluid, overlapping spectrums; focus on individual profiles
Prevalence Interpretation	Uniform global rate (~1%) interpreted as biologically universal	Viewed as evidence of over-diagnosis or conceptual generalization
Role of Psychotic-like Experiences	Pathologized as early signs of disease	Seen as common, non-pathological responses under stress

4.2 Imaging of Neuroimaging, Genetics, and the El Managed Pathology

The fact that improved neuroscience has made brain research even more sophisticated in terms of studying its structure and functioning. MRI, PET, and voxel-based morphometry have been used to identify cortical thinning, abnormal enlargement of the ventricles or changes in subcortical volumes which come along with psychotic disorders. These results, however, are both inconsistent, non-specific and as a rule confounded by the effects of medication, environmental exposure, and the interpersonal variability.

Likewise, genetic studies have pointed out that there are innumerable single nucleotide polymorphisms (SNPs) that are linked with high risks of psychosis. The effect sizes however are usually small, and a single gene or genetic profile has not yet been diagnostically decisive. The polygenic risk score and genome-wide association studies (GWAS) imply polyfactorial inheritance pattern which does not hold the idea that psychosis is a unitary biological entity. By making the biological story even more complicated, recent meta-analyses have even cast doubt on the dopamine hypothesis itself, as long a staple of psychiatric knowledge. Specifically, research conducted on anyone who has been deemed as being at-risk of experiencing psychosis demonstrates no meaningful disparities whatsoever in the levels of dopamine between the subjects and controls, thereby discrediting the possibility that overactive dopamine activity is what causes the synthesis of psychotic experiences.

4.3 Taxonomic Instability of Psychiatric Diagnosis

Different diagnostic categories like brief psychotic disorder, schizophrenia and schizoaffective disorder have always been viewed as fixed clinical entities. Nevertheless, a growing body of literature shows that these categories are not internally homogeneous and mutually distinct. These labels have been frequently arbitrary and lack biological validity, as shown by symptom overlap and inconsistent manifestation, and the changing diagnostic criteria used over the years.

In addition to this, prevalence data also have some issues. A good example is the prevalence rate of schizophrenia that has always been estimated to be around 1 percent of the world at large, irrespective of the culture, geographical location or the social background of the latter. This unlikely homogeneity, unusual in the case of medical conditions, is highly problematic in terms of reliability and cross-cultural validation of diagnostic models. There is also the evidence given by large-scale studies that point to the fact that a large number of people report psychotic-like experiences without reaching clinical levels and without seeking mental health services. These data reveal the psychosis continuum which criticizes the categorical perception that is inherent in the biomedical model.

4.4 Psychosocial/Environmental Determinants: The Absence Biological Frame

More and more epidemiological research indicates that the environmental and psychological stressors are of great importance in the onset of psychosis. These come in the form of childhood trauma, emotional neglect, racial discrimination, city dwellers, immigration pressures and social isolation. Meta-analyses have indicated strong correlations between childhood adversity and subsequent psychotic symptoms indicating that trauma could be a predisposing and a maintaining cause on some occasions.

The biological paradigm is still finding difficulties explaining these findings and is preferring to refer to these findings as some form of a “risk modifier” as opposed to seeing them as a major etiological factor. This realm of epistemic blindness bespeaks a reductionist tendency that secures the position of internal measurable malfunctions upon the lived experience and contextual entrenchment. As a result, purely pharmacological interventions of treating psychosis might fail to consider the psychosocial dynamics that results in the development and maintenance of psychosis.

4.5 In the direction of a Spectrum Model: Dimensional Re-framing of Psychosis

To take on these quirks, an increasingly large pool is recommending that categorical diagnoses be replaced with a dimensional or continuum-based diagnosis. The psychosis models theorize psychosis in a continuum of human cognition and perception as opposed to discreet forms of diseases. According to the so-called model of psychosis continuum, different degrees of severity amongst them are possible and the psychotic-like experience may be not only present at the clinical level but also in the overall population, having no damage to the clinical performance. Supporting evidence for making this change exists in the epidemiological research area stating that up to 8 percent of the population has reported any kind of psychotic experience, including hearing voices or feeling watched without clinical diagnosis. Such experiences are typically episodic and are often associated with contextual stress, or a history of trauma, and not resistant biological malfunction.

This dimensional view is matched with transdiagnostic approaches in psychology and allows greater individualized intervention. It also shifts the clinical interest to matters of meaning-making, context, and resilience as opposed to pathology and chronicity.

5. Conclusion and Future work

The biomedical paradigm which has long been responsible in the explanation and governing practices of psychosis is now proven to have epistemic deficiency. According to Thomas Kuhn, scientific paradigms are historical, and they are not absolute truths, but historically contingent frameworks, within which questioning takes place - at least until they become unable to explain, have proliferated too many anomalies. Psychosis represents a situation where the biological model has passed an inflection point, where once it was promising, its underlying assumptions become progressively inadequate to the explanation of the complexity of human experiences, of distress and of recovery.

The three main anomalies discussed in this analysis, the meaningful nature of psychotic speech, the complexity and instability of classification of psychosis and the question of limitation of pharmacological treatment each present deep tensions within the biomedical model. It is not so much here and there outcroppings of purely academic interest but symptomatic of a more general exhaustion of paradigm. Although decades of research have already been conducted, the biological paradigm still fails to come up with an integrative theory of aetiology, the reliability of the diagnosis, or an effective truly person-centred treatment course. Consequently, its former unquestionable hegemony in psychiatry, nursing practice, has to face increasing suspicion among the academic world and by the service-user movement.

It is important to note that paradigmatic crisis is described by Kuhn as speaking about the instruments of normal science that can no longer be used to produce anything meaningful. These tools in mental health are the diagnostic manuals (DSM, ICD), pharmacological treatments, and methodologies of research aimed at determining internal

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biological shortcomings. These are the things that used to propel the field ahead but these days they are yielding diminishing returns. Antipsychotics, although used extensively continue to hold partial and temporary success of treatment. They do not provide much to the individuals classified as treatment resistant and the side effects may interfere with quality of life. Besides, such treatments often do not tend to address relational, existential, and social aspects of psychosis as selected to focus by service users themselves.

At the same time, there has been a flourishing of 'other approaches, many of them service-user-led, which are starting to challenge the concepts of psychosis. Hearing Voices Network, the Power-Threat-Meaning Framework, and Open Dialogue application movements focus on understanding the position in the relationship, narrative re-formulation, and cultural context. They do not conceive of psychosis as a unitary biological aberration, but as an intelligible, expressive and even a normal way of responding to negative life circumstances. Notably, the models move the source of knowledge creation out of the regimen of the clinician to the user of the service, and out of the laboratory into lived world. Such democratization of expertise establishes an epistemic breach with the positivism of the biomedical model.

It is within these tensions of paradigms where mental health nursing exists. Having a history of being incorporated into the hierarchies of psychiatry, nurses have been both the instruments of biological model and the specterregarders of its failures. It is their special time and affective nearness to service users, temporal and emotional, that places them in sight of the mismatches of diagnostic categories, drug regimes, and the reality of the people whom they serve. More and more in recent years mental health nurses have been asked to operate within a pluralistic and even conflicting clinical environment. This implies a trade-off between an evidence-based practice and a trauma, narrative, cultural diversity sensitivity.

This paradigmatic uncertainty is an invitation to creative space and rather not a threat. Kuhn himself has described scientific revolutions as frequently being tumultuous but increasingly offering the chance of conceptual innovation and professional redefinition. The existing crisis is an occasion to re-consider their roles as mental health nurses, not only as therapeutic providers, but meaning makers, presences and epistemic delivers of justice. It is only nurses who have a special position to play bridge-building between paradigms, and balance the tension between the established presence of psychiatric authority and new directions considering the person.

Considerable re-assessment of the psychiatric training together with its clinical and institutional frameworks which persist to favor biomedical means notwithstanding the fact that they have been proven unreliable even in the face of increasingly important information is required in this transition as well. It forces the necessity to abandon the pathologizing of difference so as to accept diversity in thinking, feeling and perception. What is more significant is that it requires professionals to re-learn listening- not only to symptoms, but to stories, metaphors and silences that are part and parcel of psychotic experience.

Paradigm transformation work is relational and conceptual. It involves formation of therapeutic alliances based on respect, curiosity and co-authorship. It entails establishing clinical setting in which uncertainty is no longer feared but actually dealt with ethically. It poses a challenge to practitioners to learn how to absorb ambiguity, to withstand reductionism, and to develop into a practice that is responsive not only to clinical performance, but to human performance as well.

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The authors have no conflicts of interest to declare

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