

A significant advancement in the field of Neuroscience, Neurology or Psychology in the last decade: Contribution of psychology to present understanding of schizophrenia

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When faced with writing about a recent significant advancement in psychology it is tempting to address novel and exciting scientific discoveries. However, psychology as a discipline is quite unique and different in focus from related branches such as psychiatry or neuroscience. Therefore the advancements may not lie in discovering a new dementia drug or finding a schizophrenia-related gene but in more subtle, nevertheless not less significant notions furthering our comprehension of human mind and behaviour. This essay will be set in the context of mental health and it will explore recent psychological contributions to present understanding of cardinal psychiatric disorder; schizophrenia.

Schizophrenia can be described in two ways. One perspective is a life-long devastating brain disease whereas the alternative is a distress resulting from difficult experiences which can be often successfully managed [1, 2]. The difference in the mere definition is not banal as it illuminates deeper discrepancies in current approaches to mental health. The former view can be associated with the medical model, advocating biological aetiology, systematic diagnostic criteria, and pharmacological treatment. Conversely, the latter definition emphasizes meaning, personal experience, and recovery. This view reflects the psychosocial perspective, unifying psychological and social factors into one framework. This is manifested in emphasis on individual circumstances, corresponding to growing body of research indicating crucial role of personal background in development and course of schizophrenia [3]. This in turn constitutes important applied implication as it results in promotion of different approach and treatment. Although such view can be criticised as highly polarised, with the

actual picture being more nuanced, it still largely holds that the medical model perceives mental illness as a pathology needing a medical cure, while the psychosocial model supports normalization.

Psychological ‘abnormality’ was known since the ancient times. Prehistoric societies associated it mainly with evil spirits [4]. Similarly, Middle-Ages were dominated by belief in witchcraft. Szasz [5] argued that the prosecution of witches concealed moral problems, serving interests of the clergy. Later religious ideology transformed to a scientific one with deviant behaviour becoming medicalised. The 1950’s drug revolution brought antipsychotic medication, however today concerns are raised over the effectiveness and diagnostics [6]. In fact, pharmaceutical industry and psychiatry had long popularized the medical model, advocating dysfunctional brain chemistry aetiology [7], however as some suggest without particularly ample evidence-base [3, 8]. Thus this way schizophrenia became stigmatized as a seminal biologically-driven mental disorder.

Indeed, lack of biomarkers and medical tests for mental disorders such as schizophrenia is the medical model’s major shortcoming. Thus far, despite numerous correlations with genes and the brain, no physiological indicator of schizophrenia exists [3]. Paradoxically, psychiatric treatment is nonetheless medication-based. Similarly, the key psychiatric diagnostic tool, the ever-expanding DSM, rests upon professionals’ personal perceptions. It is therefore socially and not medically constructed. Moreover, antipsychotics often do not work; when they do, they address only positive symptoms while not helping negative symptoms, and evoke a plethora of side-effects including motor and

cognitive impairments [9]. In fact, many non-Western societies which rely less on the medical model report shorter duration and better prognosis for mental disorders, while other actually treat psychotic experiences as natural [10].

Indeed, corresponding to the subjective diagnostic perceptions, there are also large individual differences among people with psychosis. The scale of the phenomenon is larger than commonly thought with up to 30% of public declaring at least one-off experience of voice-hearing [11]. This experience can be prolonged and severe, however not always distressing and requiring psychiatric input. In fact, Hearing Voices Movement represents many people accepting voices and not identifying as mentally ill [12]. While medicine classifies voice-hearing as pathology, psychosocial model stresses that it can be understood through personal history [13]. Voices are hypothesized to be an inner speech attributed to a non-self source, serving as externalization of unwanted thoughts and feelings [1]. Similarly, delusions can be thought of as issue of hypermeaning; attributing excessive meaning to surrounding cues [14]. It is common in every human in instances such as falling in love. Psychosis is simply more intense. Therefore the differences are rather quantitative than qualitative [15]. However, the medical model largely disagrees despite content and function of voices appearing significant [13]. This results in impediment of meaning, self-identity, agency, and recovery [16]. Therefore, the current principal psychological message is that psychosis is ultimately a variation of normal human experience.

Unpacking this further, certain circumstances make psychosis more likely to occur, which highlights environmental aetiology [17]. Genes clearly matter, as schizophrenia is indeed associated with heritability, however most likely a complex gene-environment interaction occurs. For instance, thought disorder, a cardinal psychotic feature, has been linked to familial communication deviance. However, it was found that offspring of parents with a thought disorder given up for adoption tended to develop the problem only if the adopted parents also displayed communication deviance [18]. Thus, genes lead to particular susceptibilities, as reflected in the widely known diathesis-stress model, however final outcome is mediated by environment, with additional role of subjective appraisal [19]. Still, more research is needed, especially given the correlational nature of the findings [17].

The process is truly complex as environmental input differs for each individual and subsequently transfers into heterogeneous presentation [20]. Nevertheless, meta-analytical research identified key environmental risk factors, involving communication deviance, childhood trauma including sexual abuse and bullying, urban living, immigration, and marijuana use [17, 20]. A particularly strong influence seems to be exercised by early sexual abuse, which apart from inducing trauma imprints negative cognitive schemas and maladaptive coping, in accordance with the attachment

theory [21]. These increase overall risk for mental problems, including psychosis. In fact, retrospective studies report childhood abuse in 85% of psychiatric population [22]. Janssen and colleagues [23] confirmed this in his prospective study, highlighting that abuse elevates psychosis risk 9 times, with most severe forms increasing it 48 times. This enlarges further for multiple types of abuse [24]. However, associations appear to be symptom-specific. Indeed, Bentall et al. [20] found that: communication deviance links to thought disorder, attachment disturbances to paranoia, and child sexual abuse to hallucinations. However, these are not exclusive to schizophrenia, as for instance the association between abuse and hallucinations is equally valid for bipolar disorder and non-clinical sample [21].

Factor-to-symptom associations are congruent with the idea of schizophrenia as a spectrum condition [20]. This has significant implications for diagnosis, as this view is incompatible with classical Kraepelinian criteria used in the DSM which attempt clear divisions between disorders and between 'normal' and 'abnormal' function [25]. Some psychosocial advocates propose abolishing diagnostic labels and working with simple descriptions [16], aiding destigmatization. However, pragmatically labels appear essential for communication, services, and research. The consensus may be achieved through a wider use of psychological formulation, which drawing on psychological theories creates shared understanding of individual history and difficulties [16]. Another applied utility is use of talking therapies, psycho-education and peer support, rather than sole medication. This answers calls of service-users for greater inclusion and empowerment, which can influence recovery [12]. Furthermore, recent meta-analysis suggests that cognitive-behavioural therapy (CBT) for psychosis is generally beneficial [26], despite intense utility debates. Some sceptics underline CBT's small effect comparing to medication, however CBT's effectiveness is assessed while individual continues taking medication, therefore the two cannot be disentangled [27]. In sum, CBT seems worthwhile regardless as it acts complementarily and improves outcomes. Indeed, this view is reflected in current NICE guidelines recommending CBT for psychosis [28]. However, presently only about 10% of people access it [29]. The figures are even lower for other psychotherapies such as family-therapy.

In sum, although given low access to psychotherapies the field has still some way to go in terms of significant practical impact, it can be argued that the psychosocial approach did make a meaningful contribution to understanding of schizophrenia. Challenging assumptions of psychosis as purely organic disease, abundance of research demonstrated a pivotal role of psychosocial factors. Highlighting environmental aetiology carries vital ramifications for how psychosis is approached. Crucially, psychosocial literature suggests that psychosis is a meaningful variation of human experience, exercising normalizing influence and

tackling stigma. It inculcates compassion, shared humanity, empowerment, and recovery. Vehicle for achieving that constitutes psychological formulations and therapies such as CBT. Overall, the psychosocial approach appears much more personalized and shows greater appreciation of individual factors than the medical model. Despite undoubtedly valuable contributions from brain and genetic studies, the argument for greater appreciation of psychosocial factors appears strong.

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