

Ecopsychological and Cultural Perspectives in Neuropsychology of Schizophrenia Spectrum Disorders

Dieudonné Ngalamulume^{1*}, Okitundu luwa Daniel² and Bomoko Makila Guy³

¹PhD in Psychological Sciences and Clinical Neuropsychology, CNPP/MA, Faculty of Medicine, University of Kinshasa, Democratic Republic of the Congo

²PhD in Developmental Neuropediatrics and Clinical Neurosciences, CNPP/MA, Faculty of Medicine, University of Kinshasa, Democratic Republic of the Congo

³PhD in Developmental Neurosciences Clinical, CNPP/MA, Faculty of Medicine, University of Kinshasa, Democratic Republic of the Congo

***Corresponding Author:** Dieudonné Ngalamulume, PhD in Psychological Sciences and Clinical Neuropsychology, CNPP/MA, Faculty of Medicine, University of Kinshasa, Democratic Republic of the Congo.

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Abstract

Schizophrenia is a biopsychosocial model that evolves insidiously in childhood by combining programmed genetic aspects, modulated psychosocial aspects and situational conditions of the specific human ecology. The aim of the study was to determine the associations of risk factors for schizophrenia in order to integrate them into the personal history of a single case according to its total singularity. Using mixed method approaches, we integrated the data from the experiment through a sample of 101 schizophrenic subjects into the clinical and singular experience of the subjective life of a single case suffering from schizophrenia from the age of 13 to the age of 39, that is to say 26 years of continuous psychic suffering, bio-medico-psychological care at the University Psychiatric Center of Kinshasa, DR Congo.

The results plead in favor of an early and primary care which would imply the learning of positive and not negligent parenthood with the accompaniment of the youth to minimize the risk factors before their irreversible pathological constellation in other words: (the construction of the "mental blindness by a psychic glaucoma"). These associations and single cases constitute a preliminary phase of studies in the approach of early and primary prevention, aiming to promote protective factors and prevent by minimizing the risk factors of the constellation and triggering of schizophrenia spectrum disorders in youth.

Keywords: Associations; Schizophrenia; Risk Factors; Genetics; Social Environment; Holistic Care, Learning, Early Prevention

Introduction

The study is part of a perspective of clinical and therapeutic understanding of complex phenomena that only require plural methods, such as schizophrenia spectrum disorders, autism spectrum, hysteria, depression, drug addiction and others. Diagnostic identification by parents or relatives who have psychiatric information on these disorders is more beneficial when it is done early than the DSM psychiatric diagnosis made later in a context of multiform precariousness in the DR Congo [7,13,14,17,21].

Neurobiological and human ecology perspectives emphasize the impact of environmental Flynn effects and the effects of endo-phenotypic or epi-genetic pleiotropies. They associate the impact of poverty and family, socioeconomic and political insecurity to explain some of the occurrence of complex psychopathological syndromes and, thus, mark the Gordian core of semiology in schizophrenias as a serious psychiatric pathology for the majority of young people aged between 15 and 35 years [11-17]. The associations that exist between the spectrum disorders of schizophrenia and the clinical, sociodemographic characteristics of the living environment of the patients have been studied in numerous literatures. It is also interesting to verify the psychopathological influence of human ecology on neurobiological markers and vice versa, in the construction of schizophrenia spectrum syndromes [18].

Materials and Methods

In our study, the mixed method was supported by a quantitative approach through the literature survey, a clinical qualitative approach through a single case study [22-24]. In order to carry out the survey, we used a protocol including a thematic questionnaire constructed from risk factors for schizophrenia proven in the literature review [2,3,6,8,9]. The patient files constituted a material of patients hospitalized during a period from 2012 to 2016 whose age varied between 15 and 59 years. 181 patient files were recruited at the University Psychiatric Center of Kinshasa, among which, 80 incomplete files were excluded and 101 files were retained as a sample for the retrospective and cross-sectional study aiming at the associations of risk variables of schizophrenia in the Congolese context.

The study variables retained according to the literature review were: sociodemographic factors; clinical factors; course and prognosis; and a single clinical case currently being followed at the Centre neuro-psychopathologique et santé mentale "CNPP/MA" of the University of Kinshasa/RD Congo. The processing of the study data was carried out by means of SPSS-21.0 and Excel 2007 software, to construct tables and figures, calculate frequencies in percentage, mean, standard deviation and associations through Chi-square test ($p < 0.05$). The results are presented according to sociodemographic factors; clinical semiological factors; associations of variables of interest and clinical analysis of a single case of the schizophrenia spectrum from the perspective of "Luba" culture of Kasaï.

Results

- Socio-demographic and habitus factors showed that the age range of 26 to 35 years represented 41.6% of the subjects; whose average age was 33.3% more or less 12 years.
- The male gender 71.3% against 28.7% of female subjects; single people were 75.2% for the majority of the study sample.
- 38.6% of the unemployed graduated; 53.5% of the subjects had completed secondary school; 42.5% of the subjects had no specific religion; 19 (18.8%) of the subjects had ethnic values of ("Kasaïenne" province of the Luba language in DR Congo) and 60 (60%) of the subjects had no fixed occupation; 48 (48.5%) was the intermediate sibling rank of the majority.
- The habits of abuse: alcohol, 54.5%; cannabis, 21.8%; smoking, 42.6%.
- Clinical semiological factors: 88.1% of the subjects had language disorders (barrage, mutism, verbal flow, coq à l'âne).
- 71.3% of the subjects had verbal aggression as a reason for psychiatric consultation.
- Individual history, (68, 3%) and collateral, (57,4%); athletic morphotype, (46,5%); several crises (68,3%); type of schizophrenia, (paranoid, 44,6%) more frequent in subjects; (80,2%) of the subjects with body and clothing not adapted; stays of more than 90 days (61,4%); 38,5% of the contacts absent and 68,3% of psychomotor excitations; the clinical evolution good under therapies, 57,4%.
- Non significant associations between variables of clinical interest: sex and age of birth in schizophrenia, 42%, $p = 0.183$.
- Non-significant association between age of onset of the first disorders and clinical course, i.e. from 15 to 35 years (68%); $p = 0.993$.
- Non significant association between gender and clinical course of the disorders, i.e. 54.4%, $p = 0.482$.

Presentation of the single case of schizophrenia

The choice of the single case was dictated by the results of the documentary survey which had shown that the majority of the study subjects, 19 (18.8%), had the “Luba Kasaian” ethnic language, one of the territorial provinces of the DR Congo.

Mrs. MLB was 39 years old, born in Belgium to a married couple of the “Luba Kasaian” ethnic group; single, she was the first of four or six children in a monogamous, non-consanguineous family. Her family was reconstituted after the brutal divorce of her biological parents when she was 13 years old. Lived well attached to her father after the departure of her mother. The father remarried immediately and the incoming stepmother subjected her to massive abuse and neglect; she would have caught her father having sex with the stepmother at the age of 12. This resulted in a change in adaptive behaviors such as dropping out of high school unfinished, apragmatism and aggressive conflict on a daily basis with the stepmother and her own children.

The reason for the consultation was verbal and physical aggression directed against the members of his family, fig, wandering and agitation with incoherent words. His history included an initial crisis at the age of 13 and an appendectomy and osteosynthesis following a traffic accident with a femur fracture. Her pre-morbid character was marked by conflict sensitivity, temperamental, intelligent, few friends and sexually anhedonic; euthymic, leptosomal and a borderline personality profile on the DSM-4 test [24].

At the psychiatric observation, she was indifferent of the mood, psychomotor stability, intellectual production, she did not know her disorder, incoherent speech, mutism, erotomaniac delirium weakly structured with hallucinatory mechanism. The diagnosis of hospitalization was schizoparanoid spectrum disorder (DSM-4) [25] or schizo-multiple in acute phase (DSM- 5) [26]. Management with neuroleptics; learning and systemic psychotherapy and rehabilitation. The evolution is less good with minor signs under the maintenance treatment in the hospital for lack of family remediation after the death and disintegration of the family of origin 3 years ago.

Discussion

This descriptive, cross-sectional and retrospective study was carried out among patients hospitalized and discharged with a diagnosis of schizophrenia spectrum disorders. It was conducted at the Psychiatric Center of the University of Kinshasa in DR Congo. The objective of the research was to determine the possible associations between the sociocultural data of the Congolese context and the clinic of schizophrenia spectrum disorders in order to approach the appropriate management and early prevention of the patient, his parents and the Congolese family or institutional context.

In addition, [2,6] some authors present the results of a survey of associations of factors related to mental disorders in Mali, which corroborate the data of our documentary survey carried out in Kinshasa RD Congo; nevertheless, the problem remains to differentiate the diagnosis of schizophrenias and the diagnosis of acute or chronic psychoses which are not types of schizophrenias. The study showed that the risk factors are the same, such as male gender and young age between 15 and 35 years; family psychiatric history, consanguinity and sibship were factors associated with psychosis. Female gender would be more of a protective factor in psychiatric settings and a risk factor in a general population survey [10].

On the other hand, schizophrenia is a severe psychiatric pathology, it is diagnosed, observed and treated according to the DSM and ICD nosology, which define the criteria and the way of communicating it to the scientific public [1]. And this, also lends itself differently to lay observation in the language of the predominant “magico-religious” social representations in DR Congo [15,19]. Considering the seriousness and complexity of schizophrenia spectrum disorders, the interveners are often disarmed by their insidious mode of appearance in young people, their addictive poly-drugs and their multifactorial semiology which evolves in fluctuating, continuous dimensions and following the trajectory of each psychological personality and social identity [19-21]. Similarly, studies show that subjects declared to be at high risk of developing schizophrenia only become schizophrenic in 20 to 40% of cases; there is a significant risk of unnecessarily treating subjects who would never be schizophrenic according to the DSM-5 approach of preventing attenuated psychoses in the population [27].

Our observation is that the complexity of the phenomena of schizophrenia does not allow for accurate communication both at the level of the scientific communities and at the popular level in which beliefs and lifestyles related to the human ecology are varied. The lack of statistical associations that exist between different socio-cultural, clinical variables and the syndromes of schizophrenia spectrum disorders are arguments in favor of an existential and complex phenomenon [19,20]. Schizophrenia spectrum disorders is a consequence of a set of interactions between an individual genetic susceptibility, a traumatic event and a social challenge that are inscribed within the singularity of the person during his or her full development; it is a chronic and evolving delusional construct [17,18,20]. Schizophrenias are psychotic disorders that respond to a double perspective, both emic, according to the endo-phenotype, and etic, according to the epigenetic, and this justifies the absence of significant associations in the occurrence of a type of schizophrenia [4-10]. We insist on a global approach that allows us to contextualize the disorders of the schizophrenia spectrum beyond the current perspectives of nosographic classifications [3-15,16].

Conclusion

This descriptive study is part of an integrative approach of retrospective and cross-sectional type. It had used 101 medical records of psychotic patients treated under psychiatric hospitalization following which, they were discharged with minor symptoms during the years 2012 to 2016. The objective was to investigate the associations of factors determining schizophrenia in the Congolese cultural and psychiatric environment. None of the factors studied alone could explain the entire spectrum of schizophrenia in the patients involved in the study.

Thus, the cultural, nosological, sampling, semiological conditions and the goal pursued in the choice of statistical tests are necessary and not sufficient to define the whole spectrum of schizophrenia. Further research should focus on the study of risk and protective factors of a bio-psycho-social and cultural nature in order to improve the quality of care and thus prevent the worsening of positive symptoms (delusions and hallucinations). The learning of behavioral skills in troubled youth is a unique asset for victims who often find themselves in the grip of multiple biogenetic, psycho-emotional predispositions and complex human ecology as illustrated in the clinical case of schizophrenia in Mrs. MLB. In ethno-psychopathological perspective, we will study the "experience of primitive scenes of the parents and the future of a child, case of an ethnic group of Kassai in DR Congo".

Conflict of Interest

We declare no conflict of interest.

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