Psychiatria Danubina, 2019; Vol. 31, Suppl. 3, pp 524-529 *Conference paper*

EVOLUTION OF RELIGIOUS TOPICS IN SCHIZOPHRENIA IN 80 YEARS PERIOD

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SUMMARY

Background: *Environment and culture are shown to be an important factor influencing characteristics of psychotic symptoms. Content of hallucinations and delusions is a projection of internal processes on external world. Religion plays a central role to lives of many people, but in schizophrenia religious experience and spirituality is confounded by psychotic symptoms. The aim of this study was to find how content of hallucinations and delusions interact with cultural conditions, that were changing over the decades.*

Subjects and methods: *100 of case histories from 2012 were randomly selected. From the medical record, content of hallucinations and delusion was extracted and categorized. Data from 2012 was compared with previous study by the authors, obtaining perspective of 80 years of history in the one hospital.*

Results: *Religious content of delusions and hallucinations appeared in 26% of patients. Diversity of the religious and spiritual themes in schizophrenia has been gradually decreasing. Many minor religious entities and figures such as "saints" and "angels" disappeared in 2012. Although, occurrence of contact with God and other religious figures was similar as in previous years, number of "visions" abruptly decreased. All of the religious content was culture-specific.*

Conclusions: *Religious topics express general plasticity over a time, following cultural changes in society.*

Key words: *schizophrenia - auditory hallucinations - delusions - religious topics*

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INTRODUCTION

Entanglement of religion, spirituality and psychotic symptoms is neither rare nor easy clinical issue (Mohr & Pfeifer 2009, Walker 1991, Menezes & Mereira-Almeida 2010). Religious phenomenology is an area of human existence, which is inaccessible to scientific methods, based on experiment, intersubjectivity and possibility of falsification. Experiencing religion is radically subjective and individual. Beliefs are often rigid and, by definition, unprovable.

Although, knowledge about underlying neurobiological causes of schizophrenia is increasing and biochemistry of the brain became susceptible to pharmacological treatment, there is still an explanatory gap between neuroscience and phenomenology of the patients (Mishara & Fusar-Poli 2013). Karl Jaspers, the founding father of phenomenological approach in psychiatry, differentiated in delusion its form (way in which it is experienced) and the content (Bürgy 2007). According to Jaspers, the content itself is of secondary importance, underestimating that aspect of delusion. Delusion is a phenomenon, which goes beyond the natural, even extensive, contextual understanding of patients (Walker 1991). Delusions are the products of disturbed neurobiological processes, creating new, immediate meanings of the external objects. In phenomenological method, the crucial step of understanding (during the diagnostic investigation) and differentiating delusions from delusion-like ideas, is a "effortful perspective taking (transcending default self-perspective - ethnic, cultural, and individual diversity is embrace" (Mishara & Fusar-Poli 2013). Investigating the relation between social, cultural as well as historical context and psychotic symptomatology might be a fruitful field of research.

Patient with psychosis is immersed in the cultural environment and historical context, which frames form and context of psychotic symptoms (Al-Issa 1995). Both hallucinations and delusions might be influenced both by cultural differences and dominance of certain topics and areas of life (Kent & Wahass 1996). Moreover, politics of different countries might contribute to development of certain themes of delusions (Kim et al. 1993). Viswanath & Chaturvedi (2012) in their review showed several mechanisms of interactions between culture and psychopathology: a) pathogenic effects – culture is a direct causative factor in forming or generating illness; b) patho-selective effects – tendency to select culturally influenced reaction patterns that result in psychopathology; c) patho-plastic effect – culture contributes to modeling or shaping of symptoms; d) patho-elaborating effects – behavioral reactions become exaggerated through cultural reinforcements; e) patho-facilitative effects – cultural factors contribute to frequent occurrence; f) patho-reactive effects – culture influences perception and reaction.

Another aspect of external impact on psychotic symptoms, namely historical perspective, was evaluated in several studies (Skodlar et al. 2008, Stompe et al. 2003, Mitchell & Vierkant 1989). Results obtained in these researches showed differences in patients' experiences, which reflect socio-economical and cultural chances over decades, within the same country. Authors suggest that content of positive symptoms was a concretization of internal, pathological processes projected on external reality (Stompe et al. 2003, Krzystanek et al. 2012). Examples of delusions connected with advent of new technologies (such as Internet), shows that the new elements are integrated into delusional content, if they are present in a milleu of patients (Bell et al. 2005).

Religion and spirituality are important factors in life of many patients with schizophrenia. According to Mohr et al. (2007) religion plays a central role in life of 45% patients. Cook (2015), in his review, found that typically 20–60% of patients reports some kind of religious content in delusions and hallucinations. This type of delusions is associated with the higher score in psychotic symptoms' scales and the longer duration of untreated psychosis (Siddle et al. 2002, Mishra et al. 2018). Religion from a psychological point of view is a common coping mechanism (Koenig 2009). It explains the unexplainable, giving the meaning to events and experiences, which seems to be meaningless and connected with senseless loss or suffering. Facing psychotic symptoms, poverty, social exclusion, patients with schizophrenia, similarly as general population, use religion as coping mechanism (Mohr et al. 2007). However, religion can have both positive and negative impact on a course of the disease. On the one hand, religion may be a source of meaning, serenity and religious commandments, influencing behavior. On the other, factors like an exclusion from community, a promise of afterlife after suicidal attempt, a loss of faith and other spiritual experiences may consist exacerbating or even precipitating factors for the onset of schizophrenia (Huguelet & Mohr 2009, Menezes & Mereira-Almeida 2010).

In the current study, authors aimed to explore an historical aspect of delusions and hallucinations. We focused on the content of positive symptoms, their changes and fluctuations over a period of 80 years (from1932 to 2012). This research was designed as an exploration of patients' phenomenological perspective, due to a shortage of this kind of approach in literature of the topic.

SUBJECTS AND METHODS

In the study, authors conducted a retrospective analysis of 100 medical histories of in-patients diagnosed with schizophrenia. All of the patients were admitted to the State Neuropsychiatric Hospital in Lubliniec (Poland) during 2012. In case, if an admission exceeded the end of December 2012, the data from the beginning of 2013 was considered, too. This particular year was chosen as a continuation of earlier study conducted in the Hospital in Lubliniec (Krzystanek et al. 2012). In the previous research, case histories from the years of 1932, 1952, 1972 and 1992 were selected, and the starting point (1932) is the year from when the complete paper records of patients were able to collect.

The study sample was randomly selected by an administrative worker responsible for managing an archive. The archivist was not a part of the research group and she was informed only about inclusion criteria: in-patients suffering from schizophrenia admitted in 2012 with equal number of men and women. This approach was applied to eliminate the selection bias. Mean age of the patients was 45.5±14.2, including 50 men and 50 women.

First step of the analysis was an extraction of both delusions and hallucinations from case histories. Authors aimed to separate the elements to obtain simplest structures of patients' reports, yet having an informational value. Subsequently, the obtained data was categorized by the topics. The following categories of topics were distinguished: religious figures (i.e. "God", "Christ", "Pope"), events (i.e. "The end of world") and other religious themes (i.e. places of cult or activities such as prayer). Certain elements were also divided by the subjective relation, perceived by patients ("contact", "vision", "identification"). Term "religious content" was understood in a broad sense, both as religiousness (referring to a certain tradition, doctrine and religious community) and spirituality (concerned with transcendence and meaning) (Mohr et al. 2007).

Finally, results from 2012 were compared with previous study. Complete data encompassed period of 80 years, measured in 5 time points separated by 20 years intervals.

RESULTS

Total number of all topics extracted from the study sample was 237. Among them, authors found 57 religious elements counted after decomposing complexed patients' relations on primary subjects. Religious content of delusions appeared in 26% of case histories. Global category encompassing contact with deity and divine mission was third most common theme in the total number of positive symptoms' elements. Second most common religious element was a representation of evil, personified as the devil, what is congruent with catholic beliefs. Table 1 present most prevalent elements of hallucinations and delusions in the case histories. "Contact with God" as a topic was exceeded by the number of persecutory delusions deriving from earthly sources.

Nearly all of the religious themes were associated with Catholicism, what reflects the dominance of this religion among the polish population (95.8%, according to the official record). A topic of reincarnation appeared only in one patient. Moreover, in the context of the case history analysis, reincarnation didn't derive from personal beliefs of the patient, but was rather a cultural or more – a pop-cultural motif.

Table 1. Religious content among all positive symptoms subjects. Presented as percentage of the theme in total number of positive symptoms

Positive symptoms subject	Percentage of all positive symptoms
Persecutions by other people	14.5
Persecutions by family	8.3
Contact with deity, divine mission	6.3
Poisoning	6.6
Machines & Technologies	4.4
Body	3.9
Institutions and secret services	6.1
Persecutions by neighbours	3.5
Persecutions by medical personnel	3.1
Psychotropic drugs	3.1
Satan/demons	3.1

Another trend in the material is a general decrease of religious themes diversity. It is especially visible in Table 2, regarding figures such as Holy Spirit or Saints. Number of this figures dropped to zero in 2012. In case of saints, study showed stable decrease since 1932. Also in the Table 3, figure of "angels" is absent, both in visions and in form of contact. Disappearance of this theme started in 1992 and continues in 2012.

Authors found a trend of decreasing prevalence of divine visions among the subjects. Table 2 shows rapid decline of this theme in 2012. There were only few visions of God and Holly Mary. Mother of Christ is a very important figure for polish Catholics, personifying divine care and hope, appearing in revelations during important moments of polish history. As it is visible in Table 4, Częstochowa (the shrine to Mary) rarely, but constantly appear in positive symptoms. Speaking of delusional identification, Table 2 shows disappearance of this phenomenon in relation to nearly all figures, except for "Identification with God" and "Identification with Jesus". Religious figures in this context are the concretization of patient's grandiosity delusions, i.e. *"I feel that I am an incarnation of Jesus. People expects that I will resurrect them or heal them. I am happy with it. My mother must be divine, if she gave birth to Messiah."*

Table 2. Incidence of major Catholic figures in delusions and hallucinations of the patients. Results are expressed as percentage of patients presenting each figure. They were differentiated according to the relation of patient with deity

Positive symptoms subject	1932	1952	1972	1992	2012
Vision of God	17	6	14	16	3
Vision of Mary	6	6	8	6	2
Vision of Christ	10	6	8	4	0
Vision of Holy Spirit	3	2	3	0	0
Names of saints	6	2	3	1	0
Contact with God	3	0	10	5	5
Contact with Mary	4	4	7	3	5
Contact with Christ	1	6	6	1	3
Contact with Holy Spirit	2	2	3	0	0
Contact with saints	4	4	6	1	0
Identification with God	5	2	1	3	1
Identification with Mary	1	0	2	2	0
Identification with Christ	6	2	2	2	1
Identification with saints	2	2	0	0	0
Being saint	2	0	3	4	0

Table 3. Incidence of transcendental themes and minor religious or spiritual figures. This category include also representations of evil and apocalyptic motives. Results are expressed as a percentage of patients presenting each element in positive symptoms

Positive symptoms subject	1932	1952	1972	1992	2012
Afterlife	1	4	2	4	2
Heaven	1	4	2	3	1
Hell	3	4	3	1	1
Eternal damnation	0	0	0	1	0
Visions of Satan/devil	8	4	6	6	5
Visions of angels	4	2	4	0	0
Contact with devil	7	4	3	2	5
Contact with angel	3	2	3	0	0
Contact with ghosts	7	4	5	1	1
Black magic/Satanism	1	0	1	0	0
End of the world	1	6	5	1	4

Table 4. Incidence of religious themes connected with Catholic rituals, tradition and the Bible. Results are expressed as a percentage of patients presenting each element in positive symptoms

Positive symptoms subject	1932	1952	1972	1992	2012
Church	2	6	5	1	3
Cross, Holy Water	4	2	1	1	3
Mass	0	2	6	1	0
Prayer	3	0	1	2	3
Pope	2	0	0	3	1
Priest	0	0	2	1	0
Czestochowa (shrine)	1	0	0	2	1
The Bible	0	0	1	2	1
Biblical prophecy	0	0	0	2	1
Biblical citation	0	0	2	4	1
Biblical events	6	2	2	3	1
Crucification	0	0	0	0	1
Sin/Religious guilt	0	0	0	0	2
Exorcism	0	0	0	0	1

Although, figures of angles and saints disappeared in study sample, occurrence of devil is constant, similarly to data from earlier study (Table 3). Interestingly, every case of apocalyptic visions in delusions was connected with devil or Satan. This kind of delusions was especially catastrophic and ominous, i.e. *"Stronger and stronger radiations were directed toward me. Devils were released from hell to destroy everything, all Poland, all the world"*. Devil in that case may be perceived as a concretization or an attempt to explain high level of psychotic anxiety and fear.

Table 4 presents an incidence of physical objects (symbols) and places connected with the topic of religion. This category includes also clergy. Though those elements are relatively rare content of positive symptoms, nevertheless amount of this type of representation is stable over time (except for "Biblical events"). Among new topics, non-existing in previous years, in 2012 we found "crucifixion", "sin", as an expression of sense of guilt and "exorcisms".

DISCUSSION

In 2012, there were 26 patients presenting religious themes in hallucinations and delusions. That prevalence locates within a range of typical incidence of this phenomenon (20-60%) as presented by Cook (2015). Grover et al. (2014) showed even a higher percentage. The mentioned studies are, to our knowledge the only two studies on this particular subject. Due to wide interval between the lowest and the highest rates further epidemiological research is needed in this area.

Interestingly, we found constant decrease of religious "visions", with relatively stable number of "contact" with divine figures. Both types of delusional content were connected with separate modalities. This finding may be explained in two ways. First, it is a general change and form of natural evolution of psychopathological manifestation of the symptoms' content. This change may be described as a shift from passivity toward active interaction with the delusional figures. Second explanation is connected with weak point of our study – it depended on the patients' clinical records not on the personal examining of subjects. Hypothetically, the psychiatrists fulfilling the clinical files did not ask patients about their "visions". It is not possible to discern these two factors basing on our material.

Suhail & Cochrane (2010) showed the difference between Western and non-Western cultures in prevalence of visual and auditory hallucinations. Authors compared British group, Pakistani immigrants in England and Pakistani group in their home country. Pakistani immigrants' group was more similar to White British group than to second Pakistani group. Authors ascribe this result to temporary environmental impact. Mueser et al. (1990) proposed two hypotheses to explain that findings: a) a significant cultural impact on the content of positive symptoms; b) a worse access to medical facilities and treatment. In case of our data from the State Hospital in Lubliniec, both hypothesis might be true. On the one hand, during 80 years both environmental and cultural conditions have been radically changing. On the other hand, in this period of time, significant changes happened in psychopharmacology and social consciousness of psychiatric disorders. It is important to keep in mind that in 1932 and 1952 there was no antipsychotic drugs yet (actually chlorpromazine was introduced to American, not Polish market right in 1952). Mishra et al. (2018) showed that duration of untreated psychosis was correlated with more religious content of delusions, thus it could be a factor influencing a characteristic of schizophrenia symptomatology.

In our study, we found obvious decrease in diversity of religious themes. Figures of Holy Spirit, saints and angels were absent in 2012. Especially, number of saints occurring in the material gradually decreased from 1932. Impoverishment of religious themes in psychotic

symptoms might be an effect of a process of secularization of general population. Believing in saints and angels is now more and more folkloristic or "esoteric" than the canonical catholic doctrine, so that is more prone to change. Suhail & Ghauri (2010) showed that number of minor religious figures in delusions (parallel, but of Islamic origin) is connected with patients' level of religiosity. Both Skodlar et al. (2008) and Stompe et al. (2003) showed fluctuating character of religious delusions prevalence. They connect it with cultural attitude towards religion in different times and with change of interest between generations.

Although the number of other minor religious entities declined, the amount of representations of devil or Satan remained stable. In the material devil may play a very specific role. In our understanding, it is concretization of anxiety, guilt and other negative emotions. Moreover, all of diabolical figures were connected with catastrophic visions. It can reflect derealization and decomposition of patients' inner world. Rhodes and Jakes (2004) proposed a model derived from cognitive linguistics, in which metaphor is used by people reporting difficult psychosocial experiences, to make their experience understandable. In case of psychosis, those metaphors and metonymies might contribute to creation and maintenance of delusions. Devil can be an example of the metaphorical thinking. Ange Drinnan & Tony Lavender (2006) in their qualitative study suggested that all the religious content of delusions have background in personal histories. As a consequence, patients attribute (as well as God and other religious themes) their usual experiences to devil.

Figure of Holly Mary was a second most common major figure in the sample. It may reflect polish regional specificity. She is perceived by fundamental groups of polish society as the Queen of Poland. There are several shrines with holy pictures of Holly Mary and the closest one to the study Hospital in Lubliniec is in Czestochowa. There is also a religious practice of prayers to Mary and pilgrimage to Czestochowa, and asking for healing of diseases, including psychiatric disorders. However, no information about such practices was found in the analyzed material. Again, in our interpretation the occurrence of Holly Mary in psychotic symptoms can be a religious attribution of internal need for care and attention.

Only in 2012, authors found theme of exorcism in the sample. It was referred as a special kind of prayer, solution to patient's anxiety and difficult life situation. Patients, even in developed Western countries, hold superstitions, which may be surprisingly common. In the study by Pfeifer (1994), 37.6% patients from Switzerland believed that their condition is influenced by evil forces. Over 30% of them were looking for help in rituals, prayers and exorcisms. Similar believes might explain high occurrence of the figure of Holly Mary in the symptoms as a representation of hope for divine intervention and healing the disease.

Major limitation in our study was already mentioned, namely, on the basis of case histories, authors can't exclude a confounding factor, which are psychiatrists' attention for certain topics. Data come only from one psychiatric hospital. Next problem is a subjectivity of a diagnosing process and our arbitrary selection of important information from patients' clinical files. During the period of 80 years the knowledge about schizophrenia and diagnostic criteria have been constantly changing. Publication of the first version of DSM coincided with our second time point measurement (1952), but surely DSM was not applied yet in that year in Poland. Last issue is that the clinical files we used were often incomplete, and contained only general but not detailed information about patient's symptomatology. In the end, the study had a qualitative character and some of the religious topics were too rare to draw a final conclusions.

CONCLUSIONS

Religious topics express general plasticity over a time, following cultural changes in society. Religious content of delusions appeared in 26% of case histories.

In the study, impoverishment of religious themes in psychotics symptoms was shown.

Acknowledgements:

Special thanks to Martyna Kozłowska and Elżbieta Mazgaj for their help with collecting data for the study. Furthermore, author Arkadiusz Dudek would like to thank College of Individual Interdisciplinary Studies for supporting his participation in the Conference.

Conflict of interest: *None to declare.*

Contribution of individual authors:

Arkadiusz Dudek: literature research and analysis, data interpretation, manuscript writing.

Marek Krzystanek: general design of the study, data interpretation, manuscript redaction, critical review.

Krzysztof Krysta: data interpretation.

Alicja Górna: literature research and analysis, manuscript co-writing.

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