

Schizophrenia: Biology, Korean Culture, and Joe's Story

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Bio:

I just wrapped up my freshmen year as a UNT Eagle. I am currently studying for a Professional and Technical Communications major and a Music minor. My prospective career is as a professional writer. I am a member of the Society for Technical Communication and will be taking a few web seminars this summer to further explore the field. As well as keeping up with my classes, I serve as a layman youth ministry leader at Grace Church Frisco and teach private piano lessons part time in my home. I also love volleyball and keeping up with my ever-expanding reading list. In the future, I hope to widen my teaching experience as a private piano teacher and pursue a job in the publishing field.

Abstract:

This paper explores the symptoms of schizophrenia in my uncle, Joe, and introduces pertinent research regarding the possible biological and cultural influences in his case. Using the National Institute of Mental Health's (NIMH) criteria, I evaluated Joe's positive, negative, and cognitive symptoms, noting particular manifestations of each category and highlighting the particulars of his experience through family testimony. After defining his symptoms, I explored biological aspects of schizophrenia in general, as well as noted some pertinent research that may biologically explain the chemical and cognitive aspects of schizophrenia. Finally, I evaluated Joe's case in light of Korean culture. Although they raised Joe in America for the majority of his life, his parents promoted many Korean values. I found that a Korean worldview on psychosis, particularly within the family, is distinct from American views and had huge implications on the development of Joe's schizophrenia and his treatment.

When I was eight, I met Uncle Joe, whom I thought was strange because he shaved his eyebrows as well as his head and because he purposefully sat an awkwardly long distance away from everyone else. When I got older, my dad explained to me briefly that my uncle had a mental illness called “schizophrenia;” however, his explanations only puzzled me further, especially when he began to talk about Joe’s gifted intellect and musical talent during most of his adolescence. I did not understand how someone’s entire personality and also one’s thought processes and capabilities could transform so drastically in a few years. Further study on psychosis developed my understanding of schizophrenia as more than just strange processes in the mind but as a biological issue as well, and my superficial knowledge prompted me to study the specifics of my uncle’s case. As I discovered more through my tentative family, I learned not only details of the events leading up to his diagnosis, but also simultaneously found myself immersed more and more in Korean culture. My father’s family immigrated to the United States in the mid-1960s. Although my father, Joe, and their brother and sister were raised in a thoroughly American environment through school and friends, Korean culture still permeated my uncle’s life, particularly through the influence of his parents. This upbringing particularly affected his family’s reactions to and stance toward his symptoms. For example, when I inquired why his parents waited for a crisis that sent Joe to the hospital and then to jail before seeking help, my father replied, “They couldn’t just do that.” This admission led me to a further investigation of Korean culture as it affects family life, particularly regarding the process of seeking outside help. I came to understand better the communal mindset of Korean culture, as well as better understand some of the previously unexplained ways in which my grandparents related to me and my brothers. After addressing the particulars of Joe’s case and explaining his individual symptoms in light of NIMH’s criteria, I will introduce pertinent research, firstly

regarding the biologic aspects of schizophrenia itself as they relate to his symptoms. The last sections will expound some facets of Korean culture, specifically regarding education and first sons, as well as the culture's overall understanding and reactions to mental illness. This analysis will assist in understanding the background and context under which Joe developed schizophrenia, as well clarify and contextualize family reactions regarding his behavior.

Symptoms

The NIMH categorizes the schizophrenic symptoms into positive, negative, and cognitive categories (NIMH, 2009, 3-5). I evaluated my uncle's case using these criteria and also noted several possible agitating factors, including drug use, strained family relationships, and a few distressing incidents that occurred over the three years before Joe received professional help. His symptoms were recorded in a paper his younger brother wrote in an upper-level undergraduate psychology class in 1982, about three years after the initial onset of Joe's symptoms. Other information came from personal conversations with Joe's immediate family.

Positive Symptoms: Hallucinations, Delusions, and Thought and Movement Disorders

The positive symptoms that Joe displayed during the few years before he received professional help were the most alarming to his family, and are therefore the likely reason why they speak little about it. Another difficulty in gathering information from Joe's personal experience is his extreme social reticence during this time. Many positive symptoms, such as hallucinations and hearing voices, are experienced internally by people with schizophrenia, and must be explained to outsiders. Joe's reluctance to interact at all during this time indicates that the symptoms his family listed are only samples, and may not incorporate all of his experienced

symptoms. Nevertheless, many reports strongly suggest that Joe did experience many typical positive symptoms. A correlating delusion that connects many of these symptoms was his delusional belief that certain things, real or imaginary, made him sick. For example, one time when his younger brother, Leroy, walked in the house from outside, Joe pushed him back out the door, brushing at Leroy's clothes and insisting that he get off all of the "white junk" that he claimed covered Leroy's body. When Leroy, irritated, resisted Joe and asked him to explain, Joe walked off angrily without a word. Another instance was Joe's aversion to the feeling of saliva in his mouth. According to his siblings, Joe would often stand in front of the bathroom sink and spit in it for hours at a time. In his room, he would spit into the sheets, making his room unsanitary and odorous. This lack of attentiveness to personal hygiene became typical; he often slept in his clothes and ate little, claiming that any food also made him sick. These instances display the lack of touch with reality that is iconic for schizophrenia. Furthermore, though he exhibited no catatonia or other unusual motor movements, he displayed aberrant thought processes, often stating strange, paradoxical lines. Once, he told his brother, "I've died already. I've died twice. This is my third life. Well, we're all dead, aren't we?" Because of his aversion to human contact and his confrontational relationship with his parents, his family suspects – as I do – that these paradoxical statements may have been defense mechanisms to ward off interference, but some of them may have been genuine, rational statements in his mode of thinking. Finally, regarding the "voices" that is also typical to a diagnosis of schizophrenia, the reports from his family are unclear. His brother did report seeing him often seated in a chair, eyes closed, body motionless, mumbling intentionally to himself as if trying to solve a difficult problem or having an argument with an unseen entity. This behavior may be the result of a general thought disorder which is common in those with schizophrenia, but also may be the response to imaginary voices.

Negative Symptoms: Lack of Pleasure, Sociability, and Expression

While Joe clearly displayed some positive symptoms, his negative symptoms were also quite pronounced and the most noticed by those around him. As a child Joe was not particularly social or outgoing; his brothers describe him as a quiet, diligent student who loyally “covered” for his brothers. As his illness progressed, however, Joe clearly exhibited a completely “flat affect,” a lack of expressiveness and a reluctance to participate in pleasurable and relational activities he once enjoyed. He specifically avoided social contact with his family, often sleeping during the day and coming out at night. When he was awake during the day, he was often out, and made no intentional communication as to his whereabouts. Later on he pointedly avoided all interaction by stepping into a room to avoid passing someone in the hallway. As his symptoms worsened, Joe would often disappear for whole days at a time, presumably with his friends. In addition to a purposeful avoidance of social contact, Joe also seemed to have difficulty taking pleasure in regular life. In one particular instance early on during the onset of his symptoms, Joe insisted that his family “do everything together from now on.” In response to his insistence, his family all went out to play tennis. Though the event and their collective presence was Joe’s idea, in the middle of a game he walked off the court and sat down, no longer interested in the game. When his family checked on him, they found him softly crying; when asked about the cause of his distress, he refused to explain. During these years the only thing that seemed to bring Joe any sort of pleasure or relief was riding his bike around the neighborhood, sometimes for hours on end, or sitting by himself at the library, muttering.

Cognitive Symptoms: Trouble with Executive Functioning, Focus, and Working Memory

Joe's cognitive symptoms may be more difficult to list precisely, as many of them deal with internal cognitive processes, but there is much evidence to suggest that Joe experienced these symptoms. These schizophrenic manifestations were likely the most stressful to him given that complicated cognitive functions historically came easier to him than to his peers; reportedly he began to speak in complex sentences before he could walk, and throughout school he often studied content beyond the scope of his classes. Though to this day Joe exhibits proficient piano performance skills, as his symptoms worsened he seemed to experience a downhill process in his cognitive ability in school-related subjects. In his last few years of high school his grades were significantly lower than typical, and after two semesters of community college Joe utterly flunked out – an occurrence completely atypical for him and distressing to his parents. He also displayed this lack of attentiveness and focus in simple decisions most people make automatically. Sometimes when approaching a doorway he would stop just before passing the threshold and stare blankly, as if trying to decide whether or not to enter, or as if trying to remember why he had been heading into the room in the first place.

Possible Contributing Factors and Treatment

Several other incidents during this same period of time, some related to Joe's illness and some unrelated, may have agitated his symptoms, particularly negative ones. His siblings during this time describe his relationship with his parents as "purely confrontational," – partially because of his failing school grades and also because of his alarming symptoms. Other agitating forces on the relationship came from Joe's borrowing money from his parents for expensive musical equipment, as well as other small endeavors. Because of this and Joe's failing grades he and his parents argued frequently, often upsetting the entire household. Furthermore, his family

as a whole hesitated to speak about Joe's symptoms. In at least one case his parents specifically forbade his siblings from inquiring about his behavior. Research strongly indicates that Joe's family troubles and confrontational relationship with his parents may have inadvertently worsened his symptoms, as people with schizophrenia tend to be worse in families with highly expressed emotion and over involvement in an effected relative's life (Birchwood & Jackson, 2001, 27). Other distressing factors include crashing his car in 1979, which increased tensions in his family, and the theft of his bicycle, which, as previously noted, was an important possession to him.

Joe's case came to a crisis point in 1980, when Joe was 22, when he impulsively rented a car for a road trip to New York City from his hometown in south Wisconsin. After staying in a seedy part of the city for a little less than two weeks, with little money and no job, he eventually ended up in jail for a few nights. After this alarming incident he received medical help; his father brought him back home, and Joe was formally diagnosed with schizophrenia and prescribed regular doses of Stelazine, a heavy tranquilizer that blocks the dopamine transmitters in the brain (Psychiatric Medications). According to his family, he improved significantly when he took his medicine regularly, despite his objections that he could "make it on his own." While on medication, he displayed a willingness to relate with his family despite a slight unnaturalness in his conversation and inappropriateness of expression, though his behavior was significantly improved from the bizarre tendencies before the medication. He stopped insisting that food made him sick, and his aversion to spittle significantly subsided. The diagnosis and improvement also helped his family's condition as well, particularly in his mother. She worried less about leaving Joe alone, and was even willing to have dinner guests over occasionally.

Pertinent Research: The Biology of Psychosis

Some of the most important research regarding the biology of schizophrenia addresses genetics, or a family history of psychosis; furthermore, studies on drugs such as marijuana reveal interesting implications through their aberrant effects on neurotransmitters serotonin and dopamine. Other research seeks to explain the cognitive processes behind what those with schizophrenia experience. Hemsley in particular has developed an interesting theory regarding schizophrenic episodes and working memory. However, while this research may seem pertinent to Joe's case in light of his symptoms, since information of Joe's case are from secondary accounts and not backed by any medical reports or personal testimony from Joe himself, identifying concrete causal relationships between his symptoms and personal experience would be presumptuous and probably inaccurate. My aim is not to establish firm explanations for Joe's particular case, but rather explore possible theories surrounding schizophrenia as a whole and, where appropriate, draw out correlations to this research.

Genetics

Given studies on identical twins, strong evidence suggests that genetics plays a huge part in the development of the disorder (Cacioppo & Freberg, 2013, 714); however, according to the verbal history of his parents, Joe's family has no history of mental illness. Still, in a study funded by the World Health Organization (WHO), a consistent 1% of populations across the world met the very particular diagnostic requirements for schizophrenia (Birchwood & Jackson, 2003, 26), suggesting that while there may be a large genetic component for its development, other factors contribute to its manifestation. The same study found that those in industrialized countries tended to have a lower rate of single-instance schizophrenic episodes where they were symptom-free 5

years later. Compared to lower-industrialized countries, the study showed an up to 25% difference between the two (Birchwood & Jackson, 2003, 27). These findings suggest that cultural differences and family life play a role in the development. While biology certainly played a role in Joe's symptoms, the lack of a genetic component in his particular case prompts further investigation into other explanations.

Drug Use

Pertinent to Joe's case is his experimentation with the drug culture, which his family describes as "systematic." Because of his determined social avoidance during this time, at best one can say it was only likely that he used marijuana, which has been specifically found to mimic some positive symptoms of schizophrenia (NIMH, 2009, 5). Though research does indicate that drugs such as marijuana may agitate symptoms ("Schizophrenia"), there is little evidence to suggest that these drugs caused his symptoms. While drugs such as marijuana may seem to emulate some symptoms of schizophrenia and may assist researchers in explaining the biological aspects of the disease, there is no clear causal link between drug use and schizophrenia, biologically speaking. However, whether or not his drug use exasperated his symptoms biologically, it certainly affected his disorder because of the subsequent tensions it caused in his family, particularly between him and his parents.

Neurotransmitters

Other research strongly suggests that dopamine and serotonin lay a role in the manifestation of schizophrenic symptoms. Links between a lack of specific serotonin receptor in the prefrontal cortex and subsequent lack of serotonin influence in the prefrontal cortex may lead

to a failure of inhibition (Birchwood & Jackson, 2001, 53). Essentially, those with schizophrenia may have trouble controlling inappropriate or aberrant actions that people without psychotic symptoms would find easy to resist. These findings tie in to the above average levels of dopamine, a related neurotransmitter associated with reward, found in the brains of individuals with schizophrenia (Cacioppo & Freberg, 2013, 714). Furthermore, many drugs that work most effectively to reduce schizophrenic symptoms block dopamine receptors in the brain. One such drug is trifluoperazine, a heavy tranquilizer also known as Stelazine, which Joe was prescribed. This medicine greatly improved Joe's symptoms, improving his sociability as well as somewhat neutralizing his "flat affect". His positive response to this drug supports these biological theories and assists in explaining his schizophrenic symptoms.

Hemsley's Deficit

More interesting to Joe's case, given his exhibited positive symptoms and pronounced negative symptoms, is a theory developed by Dr. Hemsley in the 1990s that provides a cognitive and biological explanation for some symptoms. Loosely summarized, Hemsley posits that the positive and negative symptoms of schizophrenia result from deficits in information processing, specifically in relating new information to long-term memories (Harrop & Trower, 2003, 27). This research stems from the differences found between the hippocampus and temporal lobes of those with schizophrenia and "normal" people (Harrop & Trower, 2003, 25). Simply explained, these parts of the brain deal with long-term memory and information processing (Cacioppo & Freberg, 2013, 154, 157), and therefore Hemsley theorized that those with schizophrenia have great difficulty filtering and processing information, leading to a sensory and emotional overload (Harrop & Trower, 27). This deficit in processing could explain the hallucinations and delusions,

as those with schizophrenia simply cannot make sense of the world around them. It also explains unusual and inappropriate behavior, as those that have trouble relating specific instances to long-term memories and societal norms would have trouble with appropriate expression. Furthermore, this theory nicely accounts for Joe's negative symptoms as well. Though his social antipathy was due, in part, to family stress, the extremity to which he, and others with similar symptoms, avoid human contact seems extreme when compared with adolescents who have no apparent psychotic symptoms. Hemsley's theory that sensory information may be simultaneously magnified and difficult to assimilate into a coherent, recognizable situation may explain Joe's reclusion.

Pertinent Research: Korean Culture and Mental Illness – Joe's Social and Cultural Background

Some of the most important information that clarifies and contextualizes Joe's case his Korean background, which has influenced his entire life and has greatly affected how he and his family dealt with his early symptoms. Although the large majority of his life has been spent in the United States, he lived in Korea until around the age of eight. Because of this history and the cultural allegiance of his parents to many Korean customs, Korean views on education and mental illness in particular affected his experience and his family's reaction to his symptoms. As a promising student and eldest son, cultural expectations on education are particularly important. In this context, Joe's alarming behavior, which later led to a diagnosis of schizophrenia, was likely seen as a threat to the family's homeostasis as well as to Joe's future. Furthermore, as a group, Korean immigrants tend to seek help much later than other immigrant groups, a tendency reflected in Joe's case. However, while his case affirms many of the tendencies discovered by research, because of his reluctance to speak and interact socially, it is difficult to say his exact

feelings on education and the expectations he had for himself and from his parents. As the interferences listed here are only estimates of his personal experience, based on his culture and his parent's immersion in Korean tradition as an immigrant family.

History

Immigrant Asians as high-achieving, punctilious students has become a stereotype in American culture, but despite the simplification and generalization that results from pop culture, these stereotypes are based on scientifically-researched trends. This phenomenon can be seen in pop culture. One humorous and popular example comes from the "meme" culture, featuring the "high expectations Korean father" head with a caption stating humorously ridiculous standards for school, such as: "You're five years old? When I was your age, I was six" and "You got an A- in art? You fail life." (knowyourmeme.com, 2014) Though humorous, these stereotypes come from a scientifically-validated trend in Asian family circles, which has led researchers to label Asians as the "model minority" in America because of their high academic achievements and above-average ratio of high-income households (Goyette & Xie, 1999). Historical reasons that attempt to explain this phenomenon are numerous, but one certainly important comes from Confucian philosophy, a worldview that has permeated Korean culture since the early 1400s (Hwang, 2010, 73). This philosophy emphasizes education as a path to personal self-development; by this theory, educated, developed individuals could contribute to the betterment of society as a whole (D. Kim & C. Kim, 1998, 208). Confucianism's emphasis on education became so influential in Korean culture that in the Yi dynasty (1392-1910), scholars stood at the top of the social pyramid, a position they earned through years of long study and rigorous examinations (Hwang, 2010, 76). One can see how this mentality has trickled down to the

contemporary Korean psyche today, even in immigrants. In a study done in 1989 studying the expectations of Korean immigrants compared to whites and another minority immigrants, researchers found that Korean parents had overall higher expectations for their children's academically, a trend that the children themselves shared (Hao & Bronstead-Burns, 1998, 188-189). This research seems to indicate that high education standards from their culture's history has permeated and contributed a lasting effect to Korean culture as a whole, even in immigrants. These expectations may be correlated to Joe's family; given this cultural background, his family highly prized his consistent overachievement in school and his multiple talents in music. In this light, his decreased performance takes on a much more serious light. For his family, Joe's sudden educational deficit came as a direct threat to family pride.

First Sons

Though studies have shown an overall higher than average expectation for Asian children, from themselves and from their parents, these expectations are magnified when considering the eldest son of the family, as Joe is in his family. These expectations may also stem from Confucian philosophy, which mandates a strict hierarchy that is largely patriarchal (Hwang, 2010, 76). In a mode similar to that of Western feudal practices, Korean tradition mandates a large inheritance for the eldest son upon the patriarch's death, while leaving very little for younger sons or even the patriarch's widow (Hwang, 2010, 76-77). This mentality has affected Korean business practices even well into the 20th century. A study done in 1989 by two Korean researchers found that many Korean businessmen operate based on family ties, even over monetary gain or seniority. "In the Korean family system," Kim and Kim (1989) stated, "the eldest son is at the core of family tradition. It is presumed that the eldest son of the founding

entrepreneur naturally follows his father in taking the reins of the company.” (209) While there is a little indication that his parents expected Joe to emulate precisely his father's vocation as a doctor, his identity as the eldest son of the family further raised the bar for his achievement. Though they wished all their children to graduate from college, his parents particular desired this for Joe.

I have been able to observe this mentality in my grandparents even to this day. During traditional New Year celebrations, in which my brothers and I show honor to our parents and grandparents through a bowing ceremony, we receive money as a blessing from them in return. My grandparents have always been generous to all of us, but as a general trend Addison, the eldest son of my family and the first grandchild, typically received more than me or my younger brother. Also, upon Addison's birth, my grandparent's celebrated with my parents by a special ceremony, something they only observed for him. While these occurrences may indicate unfair favoritism to an American mode of thought, I have come to understand that their generosity correlates with their expectations for their grandchildren, not their affection.

Mental Illness and Korean Culture

A study conducted in 1999 explored the psychological and cultural background for Korean immigrant responses to mental illness. The study was prompted by the unusually low hospitalization rates for mental illness among Korean immigrants (Lin & Cheung, 1999, 774). Given that other research indicates a general evenness of psychosis across all populations (Birchwood & Jackson, 2003, 26), Lin and Cheung wished to discover if the low hospitalization rate was the cause of an unusually low amount of mental illness among Koreans or the result of another, unseen variable. During their study, they found that hospitalization rates among Koreans

were not low because they had fewer psychological problems, but because on the whole, Koreans sought out help more reluctantly and after a longer period of time than other ethnic groups (Lin & Cheung, 1999, 776). The study also found that Koreans were reluctant to seek help for schizophrenia in particular; on average, families waited 3 years after the initial onset of symptoms in an individual before seeking outside help (Lin & Cheung, 1999, 774). The researchers attributed this, in part, to natural emotional reticence among Koreans, as well as their cultural community mindset. Seeking help from an outside source is a family decision, not necessarily an individual's, and involves the discussion and agreement amongst several members (Lin & Cheung, 1999, 776). The results from this study reflect Joe's case; as mentioned previously, discussion about Joe's strange behavior was explicitly discouraged by his parents, and it took a dramatic and dangerous turn in Joe's symptoms before his family reached out for medical assistance. From an American standpoint it may be difficult to understand why a family would wait for an emergency before seeking psychiatric help; however, from a Korean mindset, seeking help requires a more complicated, multifaceted decision tied up with issues of family pride.

Conclusion

Exploring the contributing biological, social, and cultural contributions to schizophrenia has been immensely helpful in assisting my understanding of my uncle and given me a greater respect for my family's continual care of him for the past thirty years. Furthermore, it has assisted my understanding of psychosis and mental illness as a whole. Today, Joe lives independently under the supervision of a caretaker in his home town in Wisconsin, where he

grew up. Though unable to hold a job and reluctant to contact his family, he enjoys riding the bus around the city and playing the piano.

References

- Birchwood, M., & Jackson, C. (2001). *Schizophrenia*. Philadelphia: Psychology Press Ltd.
- Cacioppo, J., & Freberg, L. (2013). *Discovering psychology: The science of mind*. Canada: Wadsworth, Cengage Learning.
- Goyette, K., & Xie, Y., (1999) Educational expectations of Asian American youths: Determinants and ethnic differences. *Sociology of education*, 72(1), 22-36.
doi:10.2307/2673184
- Hao, L., & Bonstead-Bruns, M., (1998). Parent-child differences in educational expectations and the academic achievement of immigrant and native students. *Sociology of Education*, 71(3), 175-198. doi:10.2307/2673201
- Harrop, C., & Trower, P. (2003) *Why does schizophrenia develop at late adolescence? A cognitive-developmental approach to psychosis*. Chichester, West Sussex: John Wiley & Sons.
- Hwang, K. K. (2010). Life goals, achievement motivation and value of effort in Confucian society. In U. Kim, and Y. S. Park (Eds.), *Asia's educational miracle: Psychological, social and cultural perspectives*. New York: Springer.
- “High Expectations Father Meme” (2014, February). Retrieved April 20, 2014, from <http://knowyourmeme.com/memes/high-expectations-asian-father>
- Kim, D. K., & Kim, C. W. (1989). Korean value systems and managerial practices. In K. H. Chung & H. C. Lee (Eds.), *Korean managerial dynamics* (pp. 207-216). New York: Praeger.

Lin, K., & Cheung, F. Mental health issues for Asian Americans. *Psychiatric Services*, 50, 774-780. Retrieved April 20, 2014, from

<http://journals.psychiatryonline.org/data/Journals/PSS/3516/774.pdf>

National Institute of Mental Health (NIMH). (2009). *Schizophrenia*. Bethesda: National Institutes of Health

Psychiatric Medications. (n.d.). - *The Medications*. Retrieved April 28, 2014, from

<http://whatmeds.stanford.edu/medications/trifluoper.html>

Schizophrenia (Easy-to-Read). (n.d.). *NIMH RSS*. Retrieved April 30, 2014, from

<http://www.nimh.nih.gov/health/publications/schizophrenia-easy-to-read/index.shtml>