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2022 INS Annual Meeting

Deep Brain Stimulation and Neuroethics

**: Experiences and relationships of Parkinson's disease patients
undergoing deep brain stimulation**

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Problem & Background

Purpose & Method

Results

Importance

Problem & Background

Problem & Background

- **Deep Brain Stimulation [DBS] raises neuroethical issues**
(including efficacy, safety, and side effects particularly change in personality or self)
- **The side effects have been reported and discussed in neuroethics**
However only very limited research was conducted
- **There are even fewer related studies in Korea and Asia compared to the western society**

Purpose & Method

Purpose & Method

- **To investigate the experiences of patients who received DBS**
- **Qualitative study was performed:**
 - **In-depth interviews [recorded, transcribed]**
 - **Analyzed transcripts [qualitative analysis]**

Results

Results

- Interviewed 17 research participants

Gender	N (%)
Men/Women	7(41)/10(59)
Age	Median (range)
Age at interview	67.5 (51-77)
Duration of disease (years)	12 (3-20)
Age at diagnosis	57 (38-65)
Duration of disease (years) before surgery	8 (2-12)
Age at deep brain stimulation(DBS) surgery	64 (50-75)
Time between surgery and interview (years)	3 (0-10)
Race	N (%)
Asian	17(100)
Replacement Surgery	N (%)
None	10(59)
One time	6(35)
More than one time	1(5)

Results

- **Interviewed 17 research participants**
- **Categories derived by coding transcripts**
 - **Core category: “Accepting the tilted days”**

Results: categories

Trajectory of patients' experience

Low quality of life
before surgery

"Accepting the tilted days"

Changed, but continuing
daily life

Decide to be changed
by having surgery

Redefining oneself
and life

Into the unknown:
surgery



Results: categories

Trajectory of changing patients' self

- General self

Low quality of life before surgery

- Self as having disease
- Recognizing the relationship body-self

Decide to be changed by having surgery

- Self in the imagination after surgery
- Self as being able to be changed

Into the unknown: surgery

- Self as 'Reborn'

Changed, but continuing daily life

- Self in the real after surgery
- Self as with disease and machine

Redefining oneself and life

- Self in the real after surgery
- Changed Self

Results: categories

Trajectory of changing patients' perspective
: one's life and death

Low quality of life before surgery

- Seized with feeling of death
- Thinking about committing suicide

Decide to be changed by having surgery

- "to be or not to be"
- One's life has to be better

Into the unknown: surgery

- Divergence

Changed, but continuing daily life

- Changed meaning of death
- Changed attitude, gratitude to life

Redefining oneself and life

- Life better than before (surgery)
- Different life compared to before

Importance

Importance

- Vividly shows the experiences of people undergoing DBS
- Supports the importance of the treatment of Parkinson's patients
 - Not only controlling symptoms appropriately but also recognizing and evaluating the physical, social, and emotional aspects that affect one's personal life
- Contributes to...
 - improving the quality of DBS treatment for Parkinson's patients
 - Expanding our human understanding of the relationship between body-machine-mind and social from neuroethical perspective

Thank you for your attention

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