Case study meetings based on geriatric behavioral science

Since February 2014, at Miharasou “Sugonosato,” a group home for elderly people with dementia, university experts and staff members have come together once every 2 months for a case study meeting. The meeting has already been held 30 times.

Even if one is unable to do things on one’s own due to dementia, with support from someone and a little ingenuity, there are still many things one can do even with dementia. Through these case studies, we have realized that, by practicing dementia care based on support for “autonomy,” which, first and foremost, respects the person’s will, those requiring care and staff members are able to lead active lives.

What is the 3-step assessment?

This case study was carried out in accordance with the 3-step method of providing care from a geriatric behavioral science viewpoint. This method of providing care is characterized by its procedures, which are divided into the following 3 steps and then examined: **Step 1. Analyze the problem**, **Step 2. Guess the causes**, **Step 3. Think of ways to solve the problem**.

STEP 1. The problem must be analyzed from the perspective of both the person being cared for and the carer with the aim of answering questions such as “What does this person want to be?”

STEP 2. The behavior that is focused on is understood as the "effect” as we search for the causes and triggers behind the problems influencing this effect.

STEP 3. A corresponding plan based on Steps 1 and 2 is considered, and information for the assessment is collected.
The assessment is carried out via a conference attended by people of various occupations that concern the person receiving care, and the response is flexibly modified based on the assessment.

The 3-step manual is available free of charge at **http://www.osj.or.jp/top/2018/0607/reaflet_e.pdf**.
←The manual may also be accessed via this QR code.

Case study meeting【Introducing the case study】

A woman in her 80s with Lewy body dementia. Studies were conducted on 3 types of behavior described below.

1. She noisily shakes the bed-rails continuously at night, but, when she is spoken to, she gets in a bad mood.
2. She worries about her money and tries to leave the facility to go to the post office.
3. She enters the rooms of other residents and touches things in them, causing trouble between residents.

STEP 1. Analyze the problem

“Noisily shaking the bed-rails,” “attempting to leave the facility,” and “entering the rooms of other residents” appear to be problems, but, for the person with dementia, the problem may be that she “can't sleep,” is “worried about money,” or “can't find her own room.” She doesn't know where her room is, but asking a staff member requires courage as she is not yet used to the facility.
Additionally, because she can walk on her own, she wants to do things for herself. Due to the varying understanding of Lewy body dementia among the staff, the way they relate to people with this type of dementia is inconsistent, and this gap in perspectives with regard to these problems may be a factor preventing the problems from being solved. The person with dementia may just want an environment to be created that allows her to feel safe and secure.

STEP 2. Identify the problem and guess the causes

Cause (Location of Problem)	Trigger (Emotional Change)	Effect (Behavior)
• Due to visuospatial cognitive dysfunction, she cannot distinguish between her own room and someone else’s. • Due to an REM sleep behavior disorder, she confuses her dreams with reality. • Drug side effects. • Proper relationships with the staff embers have not been established.	Various emotional changes were surmised, such as those stemming from money payments and not knowing where her own room is, feeling anxious from not being able to sleep, being interrupted during sleep, and anger caused by her anxiety not being understood by others.	“Noisily shaking the bed-rails” “Attempting to leave the facility” “Entering the rooms of other residents”

STEP 3. Implement care to solve the problem

- By acquiring a deeper understanding of the symptoms of Lewy body dementia through training and conferences, consistent care can be provided regardless of which staff member is in charge. In this way, instead of forcibly stopping the behavior itself, methods of giving care that thoroughly ensure positive communication and an attentive listening attitude can be shared.
  As behavior such as noisily shaking the bed-rails at night is unconscious, rather than forcefully calling out and waking the patient and causing displeasure, it is better to allow the patient to maintain her hypnagogic state by ensuring that there are no dangerous objects placed around the bed and by watching over the patient in the interest of safety and making sure she does not fall.
- When she begins to worry about money and tries to go to the post office, her bankbook and seal should be brought to her with the cooperation of a key person, such as her nephew, who will look after her money matters, or, alternatively, a staff member should take her to the post office. Instead of just explaining to her on the spot, consideration was given to the person in ensuring that she was satisfied and at ease. As a result, today, she is no longer anxious about money-related matters.
- A psychiatrist is informed of her day-to-day condition, and advice is given regarding oral medicine.

(This case study is currently still under examination)

Conversational assessment of neurocognitive dysfunction

International Psychogeriatrics (2018), 30:1, 87–94

Conversational assessment of cognitive dysfunction among residents living in long-term care facilities

Hikaru Oba, Shinichi Sato, Hiroaki Kazui, Yoshiko Nitta, Tatsuya Nashitani and Akio Kamiyama

[原著論文]

日常会話式認知機能評価（Conversational Assessment of Neurocognitive Dysfunction；CANDy）の開発と信頼性・妥当性の検討

大庭 輝・佐藤眞一・数井裕光・新田慈子・梨谷竜也・神山晃男

Conversational Assessment of Neurocognitive Dysfunction: What is CANDy？

CANDy is a tool used to assess neurocognitive dysfunction through "free" conversations with elderly persons. As questions assessing ability are not included, the elderly person's neurocognitive dysfunction can be assessed without him or her feeling resistant towards it. While assessing his or her neurocognitive dysfunction, it is also possible to simultaneously revitalize communication with the elderly person. The effectiveness of CANDy is investigated in the 2 papers below.

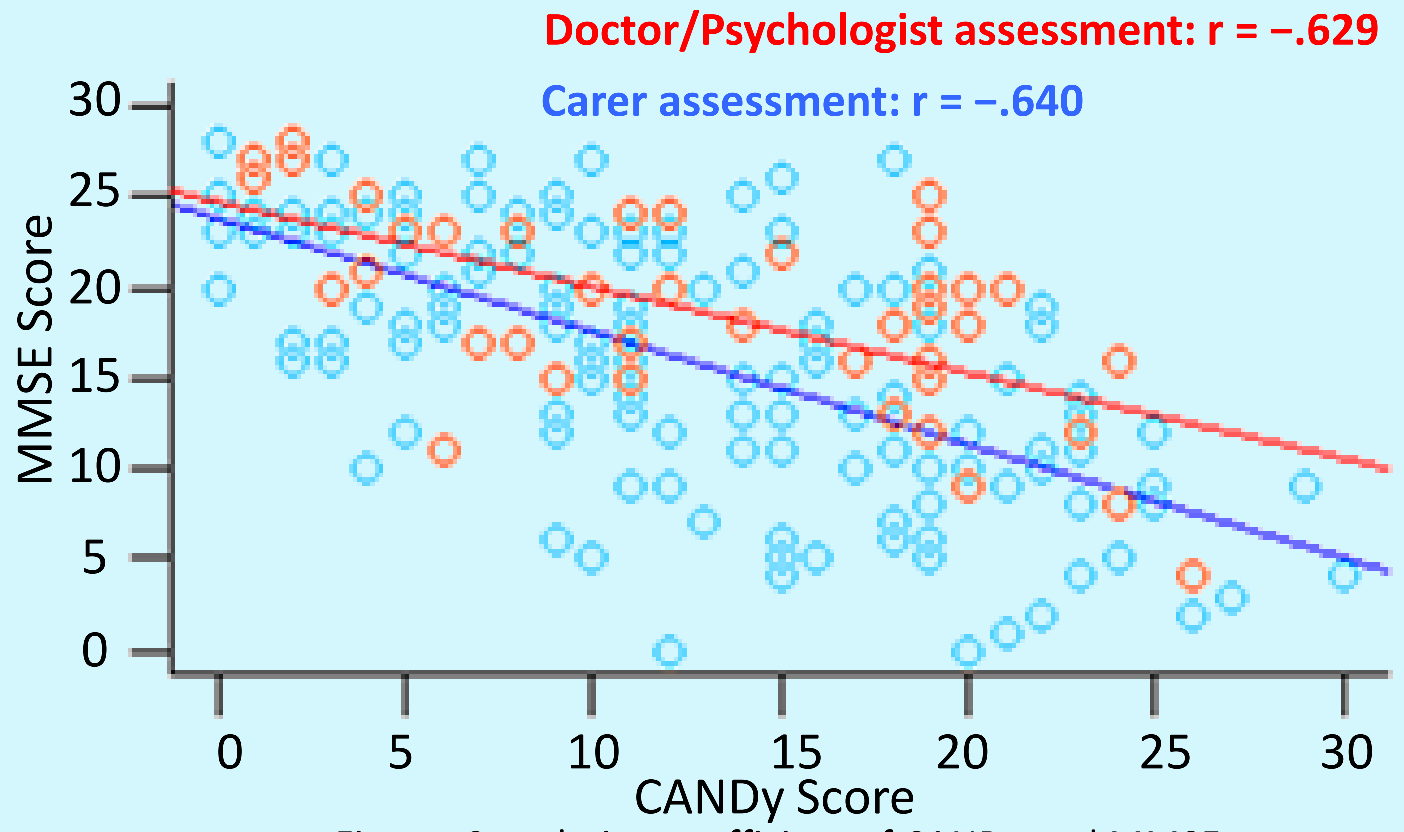


Figure. Correlation coefficient of CANDy and MMSE

The usefulness of CANDy

Research thus far has found that the correlation coefficient between CANDy and an existing screening test for dementia, the Mini-Mental State Examination, indicated a moderate correlation for both the Doctor/Psychologist assessment (r = −.629) and the Carer assessment (r = −.640), suggesting the usefulness of this tool to assess neurocognitive dysfunction.

Moreover, the verification of the screening accuracy for dementia showed that 86.2% of those with Alzheimer's disease scored 6 points or over, and 94.5% of healthy elderly persons scored 5 points or less.

Oba H, Sato S, Kazui H, et al. (2018). Conversational assessment of cognitive dysfunction among residents living in long-term care facilities. International Psychogeriatrics, 30, 87–94. (Open Access; https://doi.org/10.1017/S1041610217001740)

Oba H, Sato S, Kazui H, et al. (2017) Development of Conversational Assessment of Neurocognitive Dysfunction (CANDy): Evaluation of reliability and validity. Japanese Journal of Geriatric Psychiatry, 28: 379–388. (in Japanese)

The CANDy assessment tool and manual can be downloaded at http://cocolomi.net/candy/en/.
←They can also be downloaded using this QR code.

A case in which the CANDy assessment led to a re-examination of the way a user communicates with people

At the Komyosou special nursing home for the elderly, efforts are being made towards fostering relationships built on trust as the use of CANDy promotes interaction and aims for a lifestyle overflowing with smiles for its users.

[Case Person A]: 83-year-old   Female   Alzheimer's disease   CANDy: 26 points   MMSE: 4 points (assessed April 2018)

Since being admitted to the facility, she would reply when being spoken to by a staff member with "yes" or "that's right," but she was never seen speaking to people around her, and she mostly just spent her days sitting still in her wheelchair. Whenever a staff member would assist her, she was only ever capable of engaging in the minimum required level of communication. Up until this point, she had never been assessed for neurocognitive dysfunction. As CANDy was being used to assess her neurocognitive dysfunction, we tried to use this opportunity to increase her interactions with the staff members. As her interactions increased, she began to show more interest in the other facility users around her, so we hoped that it would allow her to lead a more energetic life.

Once the assessment had started, she began to look at the staff members and said things to them with a soft expression, such as, "Good morning" and "*Onee-chan*, I'm hungry," and, whenever a hand was held out to her, she would respond with a handshake. It was not as if she was energetic every day, as it would depend on her physical condition or mental state, but, because the assessment triggered an increased level of communication with the staff members, she would say things like "This is my bedroom" to the staff while being assisted, and she would be seen talking to facility users around her saying things like "Is it already bedtime now?" as she passed by their rooms. The staff members were thus able to share with one another the importance of consciously making opportunities to converse with people with dementia as much as possible, even after undergoing the CANDy assessment. She had previously never participated in recreational activities, but she gradually began to show interest in origami, and she would be seen handing the origami to the staff members with a smile and saying things like, "It's difficult."

Such changes in her condition have enabled the staff to realize how much the quality of care had improved, and, at the same time, it led to a new discovery, making them realize how much just an increase in communication could change the situation. In the future, we would like to deliberately increase interactions outside of conversations the facility users have when they are being cared for where they can enjoy recreational activities with the staff. We hope this will help support facility users to lead productive lives.

※The photos have been used with permission from the persons concerned.

Increased communication to have a positive influence on the QOL of facility users

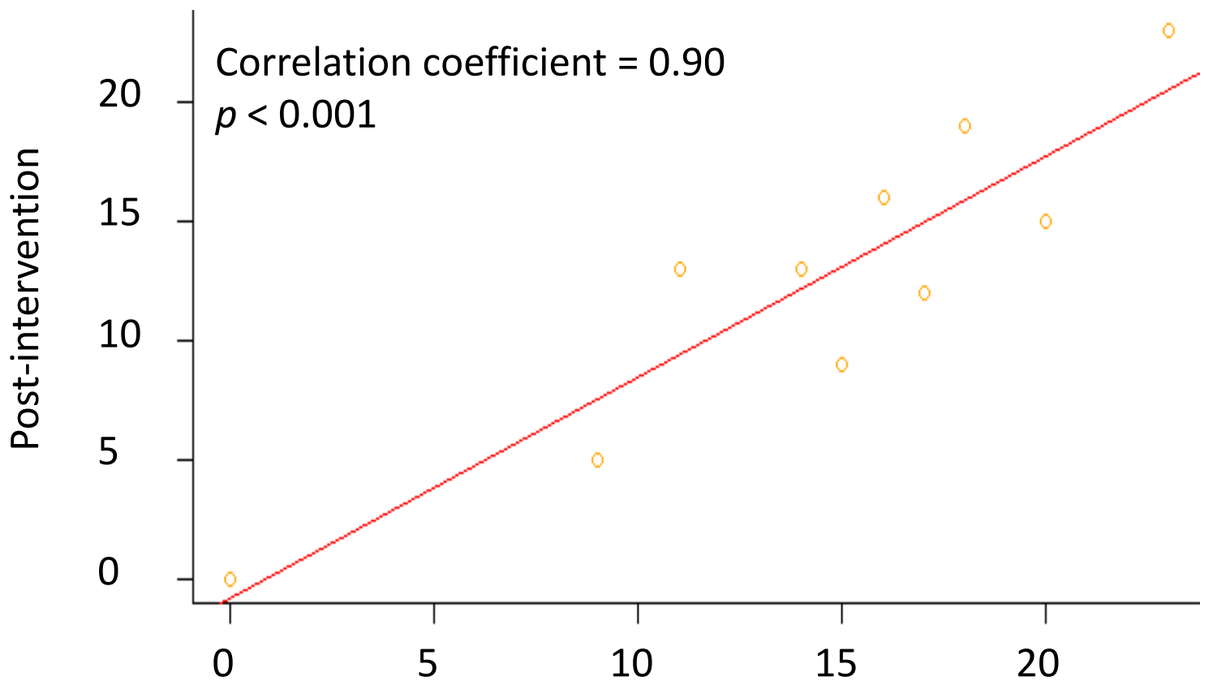
In October 2012, a dementia care *kenkyukai* was set up at the Takatsukisou Special Nursing Home for the Elderly. Since then, efforts have been made towards improving dementia care. A re-examination of the work done so far revealed that there was a lack of communication with the users of the facility. Therefore, in addition to daily recreational activities and individual care, communication with the facility users was increased to improve the quality of their lifestyles, and efforts have been put towards better communication by ensuring that the staff members firmly make eye contact with the facility users when communicating with them and make physical contact when talking to them. The results of such initiatives have been verified and have been reflected in the care plan by implementing a standardized form of care at the facility so relationships can be formed with the facility users with the aim of ensuring that the facility users can lead a productive and full life.

[Challenges for the facility]

1. The staff members have been overloaded with work, and there is almost no communication outside of providing care.
2. Time for communication is particularly lacking with facility users with dementia, who find It difficult to understand what the staff say and do.

[Intervention content and method of assessment]

- Even if there is only a short amount of time (10–30 minutes), time for conversations with the facility users was deliberately incorporated.
- When communicating, focus was placed on 3 points: “firmly making eye contact,” “talking to the users while politely making physical contact with them,” and “calmly addressing them in a gentle tone.”
- 10 facility users were selected to be assessed before and after the intervention using the assessment form for quality of life (QOL) of elderly persons with dementia. Moreover, the Conversational Assessment of Neurocognitive Dysfunction (CANDy) was implemented to assess their neurocognitive dysfunction.
- The condition of the facility users who participated in the study was documented for 1 month. The facility users’ changes were identified based on the documented assessments during verification sessions held once a week.



Pre-intervention

Figure 1. CANDy score before and after intervention

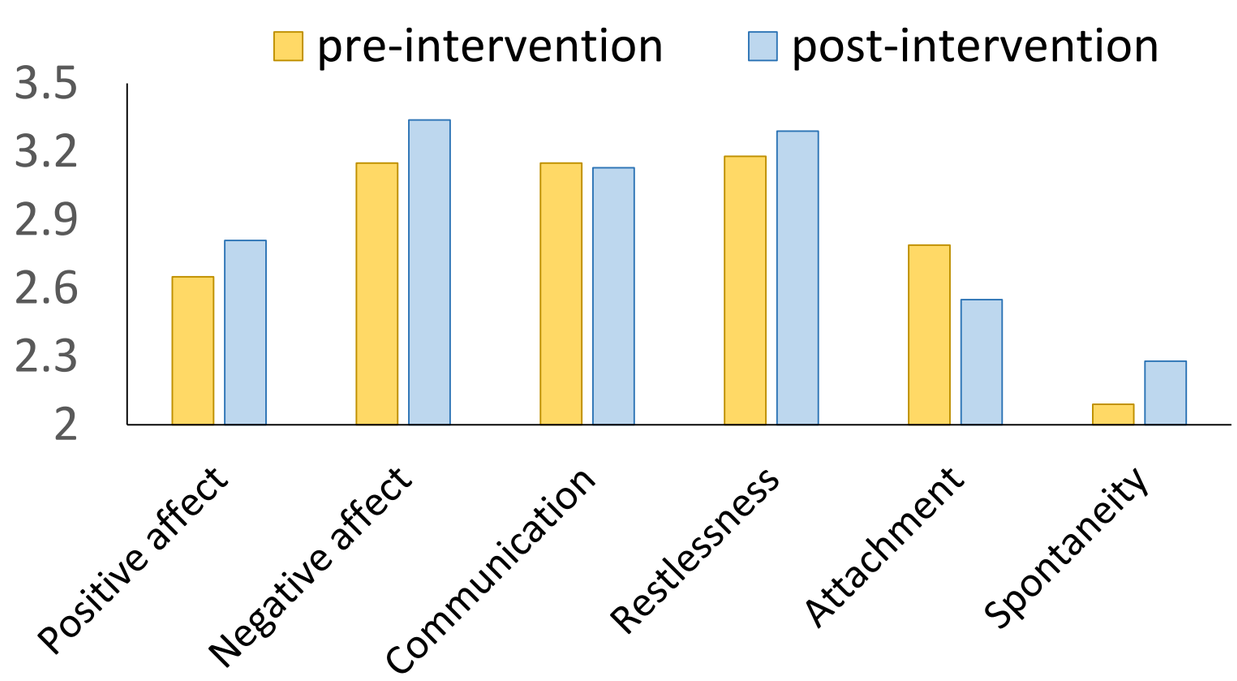


Figure 2. Comparison of QOL scores before and after intervention

Note: The higher the score, the better the QOL is.

[Results and Discussion]

- The reliability of the CANDy re-examination was high at 0.90, suggesting that the assessment was consistent.
- The comparison of QOL scores before and after the intervention showed improvements in positive affect and spontaneity as well as negative affect and restlessness.
- The staff members expressed views such as “I felt that we really connected” and “I was able to see expressions that we normally were not able to see.” Thisis thought to be the effect of the improved QOL, such as their positive affect and spontaneity, which was achieved as a result of the intervention.
- The increased interactions between the staff and the facility users achieved as a result of these initiatives are thought to have had a positive impact on QOL.

By continuing with such practices, we want to work towards further energizing facility users with dementia.

Osaka Social Welfare Corporation

We are a Social Welfare Corporation that aims to contribute to the realization of a lively aging society and a society in which human rights are respected by establishing multiple business facilities in Japan's Osaka prefecture and providing high-quality services aimed at self-support in the spirit of a “Community of Care and Mutual Respect” as we value the connections among our users, their families, and the local community.

◆Corporation outline

Corporation name	Osaka Social Welfare Corporation
Established	March 30, 1971
Business location	3-5-50, Hakunoshima, Minoh, Osaka, 562-0012, Japan
Director	Hideaki Yukimatsu
Business operations	Welfare services for the elderly, Welfare services for persons with disabilities, Childcare services, etc.

◆Business operations outline

Welfare services for the elderly

Categories	Number of business places
Special nursing homes for the elderly	11
Nursing homes for the elderly	3
Low-cost homes for the elderly	4
Day service centers	14
Helper stations	9
Care plan centers	11
Group homes	4
Small, multi-functional in-home care	3
Regional comprehensive support centers	6

Welfare services for persons with disabilities

Categories	Number of business places
Facility admission support	1
Assisted living	3
Support for continuous employment Type A	2
Support for continuous employment Type B	2

Childcare services

Categories	Number of business places
Corporate childcare	2

205 businesses in total (as of April 2017)

◆The city of Osaka

The total population of Osaka is approximately 8,819,416 (as of April 1, 2018). Seven percent of Japan’s population and 10% of foreigners living in Japan live in Osaka. It is the second narrowest prefecture in the country in terms of space and the second largest metropolis after Tokyo. Surrounded by the ocean and mountains, it is blessed with nature, but, as it also takes on the role of the economic center of Japan, Osaka has developed into “the city of small and medium-sized enterprises.” Osaka holds much of the world's share of unique technology, and it was the first region in the world to sell instant ramen.

[The state of elderly persons in Japan and Osaka]

◆ Insured persons aged 65 years old and older	
Nationwide	34,456,000 people
Osaka prefecture	2,332,000 people

◆Persons certified as needing long-term care	
Nationwide average	6,331,000 people
Osaka prefecture	494,000 people

Reference data: “*Osaka-fu Koreisha Keikaku 2018*”
(Osaka Prefecture Program for the Elderly 2018)