

\* This English manuscript is a translation of a paper originally published in the Psychiatria et Neurologia Japonica, Vol.124, No.10 p.725-731 which was translated by the Japanese Society of Psychiatry and Neurology and published with the author's confirmation and permission. If you wish to cite this paper, please use the original paper as the reference.

## Special Feature Article

### Based on Occupation, Preventative Care Woven into the Community

Katsushi YOKOI

Graduate School of Rehabilitation Science, Osaka Metropolitan University

Psychiatria et Neurologia Japonica 124: 725-731, 2022

#### Abstract

Occupational therapy is a client-centered health profession concerned with promoting health and well-being through occupation. As occupation has an effect on each person's health and well-being, occupation-based programs are implemented in the area of preventative care. The present self is said to exist through the accumulation of past occupations. Occupation is defined as an activity that a person "wants to do", "needs to do", or "is expected to do". The formula for occupation and health is  $d+b3=sh$  (doing, being, becoming, and belonging=survival and health). It means that by doing one's occupation, one is present, becomes their ideal self, and belongs, which makes survival and health possible. People's occupations are essential for their health since they enable engagement with others and society. A decline in social connectivity leads to a decline in cognitive, physical, and mental functions, and it has been the focus of attention in preventative care. To realize preventative care, it is necessary to maintain or acquire new social connections. In this article, we introduce and discuss occupational challenges and the practice of incorporating cognitive stimulation into one's occupation to reduce the decline in cognitive function in older adults. Interventions using highly individualized occupations should be considered for future preventative care strategies.

**Keywords:** occupation, preventative care, cognitive function, occupation-based practice, subjective memory impairment

## Introduction

The term “occupation” refers to activities that a person “wants to do, needs to do, or is expected to do,”<sup>3)</sup> and includes individual goals and values. Fostering productive and meaningful occupations maximizes independence, expands life functions, and helps maintain people's health.<sup>12)</sup> Occupations create a person's identity, and through these occupations, people can feel a sense of self.<sup>2)</sup> The person you are today is the result of the accumulation of past occupations. Furthermore, people can achieve healthy aging through their occupations.<sup>5)</sup> Thus, occupations are essential for living and also a basic human need.<sup>6)27)</sup> Occupations have form, meaning, function, and substrate,<sup>9)</sup> and by analyzing these elements, we can confirm the existence of the person. There is a formula for occupation and health:  $d+b3=sh$ .<sup>11)</sup> This means that by doing an occupation, you can exist (being), become the ideal you (becoming), belong (belonging), and enable survival and health (survival and health). People have occupations that are essential for acquiring health, and occupations also give individuals the power to connect with others and society. A weakening of social ties can trigger a decline in

cognitive, physical, and mental functions, and so is attracting attention in the field of preventative care.<sup>15)</sup> In order to achieve preventative care, it is necessary to maintain or acquire new social connections. In recent years, programs focusing on occupations have also been implemented in the field of preventative care. Particularly, research on the prevention of cognitive decline in the elderly is increasing. In general, habitual exercise promotion and participation in intellectual activities have been highlighted as important activities for preventing cognitive decline.<sup>25)28)</sup> However, the activities in these studies are often uniform interventions in which all participants undergo the same program, and so it cannot be said that they are implementing highly individualized occupations that have personal meaning and value.

In this study, we reflect on the power of occupations in relation to subjective health and subjective memory impairment (SMI), and we introduce and discuss new occupation challenges and dual-task intervention that incorporate cognitive stimulation into occupations, in order to reduce cognitive decline in community-dwelling older adults. Interventions that implement

highly individualized occupations need to be considered as one of the strategies to minimize the need for long-term care in the future.

### **I. Occupation and Subjective Health**

Occupation is closely related to identity and highly individualized.<sup>2)</sup> In addition, people build up their current selves through the accumulation of their occupations, and through their occupations they can come to know who they are. Occupations have a substrate (anatomical structure, neurological function, physiological function, and cognitive function required for performing the occupation), a form (observable aspects of the occupation), a function (impact on the development, adaptation, health, and quality of life derived from the occupation), and a meaning (subjective experience of the person performing the occupation),<sup>9)</sup> and the subjective experience of performing an occupation can be evaluated using the Canadian Occupational Performance Measure (COPM).<sup>17)</sup> COPM uses a 10-point scale to check whether an elderly person is able to perform an occupation well that is important to the client (occupational performance) and whether they are satisfied with it (occupational satisfaction) when actually performing it.

In a study of 675 community residents (283 men, 392 women; average age:  $66.3 \pm 10.5$  years) to investigate the relationship between the characteristics of an occupation (number, frequency, continuity), degree of occupational performance, degree of occupational satisfaction, and subjective health, <sup>32)</sup> high-level subjective health was significantly correlated with high scores for the degree of occupational performance. In addition, in a one-year prospective cohort study of the characteristics of an occupation and deterioration of subjective health in 438 community residents (175 men, 263 women, average age:  $66.3 \pm 10.5$ ),<sup>33)</sup> the frequency of the occupation was significantly correlated with a decline in subjective health perception among those aged 65 or younger [prevalence ratio: 2.95 (95% confidence interval: 1.07 to 8.18)]. This result was the same even after adjusting for sex, educational history, and disease. In order to prevent a decline in subjective health, it is necessary to focus on the frequency of occupation rather than number of occupations or their duration.

### **II. Occupation and Subjective Memory Impairment (SMI)**

SMI is a condition in which a person self-evaluates their memory ability and is aware that it has worsened compared with before, but there is no objective

decline in cognitive function or memory ability.<sup>1)</sup> In 2018, the US Centers for Disease Control and Prevention published a survey report on SMI, and it has been attracting attention.<sup>24)</sup> SMI increases with age, and it can lead to depression and institutionalization.<sup>26)</sup> Furthermore, it is also considered to be a pre-clinical state of dementia, as it cannot be ruled out that it may lead to dementia.<sup>14)</sup>

Although these are data from a study in progress, in a cross-sectional survey of 660 community-dwelling people (average age:  $66.3 \pm 10.5$ , 274 men, 386 women), the relationship between the occupation and absence of SMI was examined. In Model 1, which mutually adjusted for occupation characteristics, performance, and satisfaction, the correlation between men and occupation continuation for more than one year was significant [odds ratio: 2.86 (95% confidence interval: 1.28 to 6.40)], with women showing a significant correlation with high-level occupational satisfaction [odds ratio: 1.21 (95% confidence interval: 1.05 to 1.40)] (Figure 1). These results were also significant in models 2 and 3, which adjusted for age, educational history, body mass index, smoking, alcohol consumption, and disease. The domain of occupation includes productive activities, leisure activities, and self-care. It is possible that not only exercise

and physical activity, but also highly individualized occupations are related to cognitive function, and it is necessary to continue research with a consideration of the relationship with the onset of dementia.

### III. Preventative Care Programs Focusing on Occupation

As one's occupation contributes to good health, occupation-based programs for preventative care for community-dwelling older people are spreading not only in Japan but also around the world (Table).

In the Lifestyle Redesign Program conducted as part of the Well Elderly Study by Clark, F., the processes of education, information-gathering, and practice related to knowledge of an occupation improved the life satisfaction and quality of life of community-dwelling healthy older people.<sup>7)</sup> This program supports participants in reconstructing a healthy lifestyle that suits them by providing opportunities to talk about, think about, and actually perform occupations related to the theme, which is based on the occupational needs of the local community.<sup>12)</sup> Furthermore, the Well Elderly 2 Study by Clark et al. confirmed the cost-effectiveness of the program through a large-scale randomized controlled trial using a similar program for healthy elderly

people.<sup>8)</sup> Various similar programs have also been utilized, and the Lifestyle Redesign Program has spread around the world as Lifestyle Matters (an occupational approach to healthy aging). In research on lifestyle issues related to preventative care for the elderly, the following intervention elements are emphasized: group and individual sessions, affiliation, sharing of experience, knowledge and solutions, participant decision-making, self-selection and assertion in changing lifestyle, and continuation and challenge of lifestyle change.<sup>20)</sup>

In a preventive and health promotion occupational therapy program for community-dwelling older adults based on the ten concepts of “self-awareness of abilities,” “values,” “interests,” “roles,” and “habits,” which are components of the Model of Human Occupations,<sup>30)</sup> improvements were noted in the subscale for bodily pain of MOS 36-Item Short-Form Health Survey (SF-36) and in the environmental domain of WHO QOL26 (financial, freedom and safety, health and social care, accessibility and quality, living environment, opportunities to acquire new information and technology, opportunities for leisure activities, living environment, transportation). This program is conducted by occupational therapists, with a combination of lectures and exercises,

once every two weeks for a total of 15 sessions.

A group program using activity diaries<sup>23)</sup> is an intensive one-month intervention program for the elderly, and it has the effect of increasing satisfaction with an occupation, a sense of purpose in life, and life satisfaction. In this program, participants set goals for acquiring knowledge about occupational experience and satisfaction, acquiring skills for recording and analyzing using activity diaries, acquiring skills for devising occupations, and occupations that increase satisfaction, and build support relationships with each other while self-monitoring the satisfaction derived from their daily occupational experience.

The author has also developed a program that focuses on occupations that people want to try, as well as a dual-task program that incorporates cognitive stimulation into occupations. The details are described in the next section.

#### **IV. Program that Focuses on Occupations that Each Person Wants to try**

In order to live well in old age in the community, it is necessary to have adaptive strategies, such as “activity patterns and time rhythms” and “risks and challenges.”<sup>13)</sup> “Activity patterns and time rhythms” is a strategy that

emphasizes allocating time for doing special things within the activities you do on a regular basis, while “risks and challenges” is a strategy that emphasizes wanting to live a life where there are things to do, being willing to try things despite any anxiety you may have, and feeling that taking risks is enjoyable. As mentally and socially beneficial activities to reduce the risk of dementia, it is recommended that you continue to be curious and interested and learn new things.<sup>21)</sup> As such, in order to promote successful aging for the elderly, it is necessary to focus on taking on new occupations. However, it is said that Japanese people are less aware than Americans that it is important to do things that match their own wants and needs in order to achieve successful aging.<sup>19)</sup>

Now, we will introduce a program developed by the authors that focuses on occupations that people want to try.<sup>31)</sup> This program consists of seven sessions: (i) a lecture on occupations that deepen understanding of dementia prevention, (ii) recording of occupation history, (iii) listing of occupations that define oneself, (iv) listing of occupations that one would like to try, (v) selection of occupations that one would like to try, (vi) concretization of occupations that one would like to try, and (vii) execution and reporting of occupations that one has tried. It was shown that by having a 2-

hour session once a month with an occupational therapist, a total of 5 times, the elderly themselves came to recognize that they could stay healthy through work, and that even the elderly can try new tasks. Furthermore, it was shown that there was a significant improvement in overall health, vitality, and mental health based on SF-36, and that it also stimulated attention functions. Having purpose and meaning in life contribute to the prevention of cognitive decline,<sup>4)</sup> but it is also important to reflect on one's life from an occupational perspective.

An active and social lifestyle is recommended for older people as a protective factor against dementia.<sup>10)</sup> Since an occupation includes social affiliation, it is important to continue with one's occupation. In addition, it is also necessary to look at taking on new occupations.

## **V. Dual-task Program Incorporating Cognitive Stimulation into Occupations**

There is strong evidence that physical activity is a factor that can minimize the decline of cognitive function in the elderly.<sup>16)</sup> Exercise habits are also considered important as a factor that can reduce the onset of dementia. Recently, it was shown that dual tasks, which involve performing an exercise task and a cognitive stimulation task at the same time, can have a certain effect

on reducing the decline of cognitive function in people with mild cognitive impairment.<sup>18)</sup> Such dual tasks are often used in local community preventative care projects. However, while they are easy to implement as uniform group programs, they lack individuality and have limitations when it comes to being carried out at home. For this reason, it is difficult to make them habitual at home after the program has finished. Furthermore, it is also necessary to consider how to adapt them for older adults who do not participate in group programs.

The “dual task program incorporating cognitive stimulation into occupations”<sup>34)</sup> is designed so that the person can choose from among several important occupations, select the one that seems most likely to promote cognitive stimulation, and then continue it at home or in the community (Figure 2). In the “listing of occupations” shown in Figure 2, participants write their own names at the center, so that they can visualize the connection between occupations and themselves (occupational being). In previous studies, the following cognitive stimulation tasks were used: the Japanese word game “shiritori”, calculation tasks, recall tasks, and memory tasks.<sup>22)</sup> When the intervention (15 participants) using a dual task that incorporated cognitive stimulation

tasks into occupation was carried out for 6 months, significant improvements were observed in logical memory I and II of the Wechsler Memory Test compared with the control group (13 participants) who continued their normal lives. This suggests that cognitive function can be stimulated not only by motor tasks, but also by occupation. Furthermore, there were no adverse events, and it was concluded that the program can be safely implemented at home or in the community, so continuity can be expected. Another strength of this program is that it can be implemented individually.

Research into the daily lives of the elderly has shown that having one important occupation contributes to good health as people age, throughout the past, present, and future.<sup>29)</sup> The occupations chosen for the dual task have the potential to become integrated into people's lives and be continued into the future, and we believe that this is one way to achieve successful aging among the elderly.

## Conclusion

People perceive their own existence through the accumulation of occupations, and have essential occupations that contribute to their health. A preventative care program that focuses on occupations has a

positive impact not only on life satisfaction and quality of life, but also on cognitive function, and has the potential to become integrated into people's lives and be continued. When considering nursing preventative care strategies, exercise is an important intervention, but it is also necessary to incorporate perspectives on occupation.

Editor's note: This feature was planned by Ryohei Ishii (Osaka Metropolitan University Graduate School of Rehabilitation Sciences) and Masafumi Yoshimura (Kansai Medical University Faculty of Rehabilitation Sciences Department of Occupational Therapy) based on a symposium at the 117th Annual Meeting of the Japanese Society of Psychiatry and Neurology.

There are no conflicts of interest to disclose in relation to this paper.

#### References

- 1) Abdulrab, K., Heun, R.: Subjective memory impairment. A review of its definitions indicates the need for a comprehensive set of standardised and validated criteria. *Eur Psychiatry*, 23 (5); 321-330, 2008
- 2) Abrahams, T.: Occupation, identity and choice: a dynamic interaction. *J Occup Sci*, 15 (3); 186-189, 2008
- 3) American Occupational Therapy Association: Occupational Therapy Practice Framework: Domain and Process (3rd edition). *Am J Occup Ther*, 68 (Suppl 1); S1-S48, 2014
- 4) Boyle, P. A., Buchman, A. S., Bennett, D. A.: Purpose in life is associated with a reduced risk of incident disability among community-dwelling older persons. *Am J Geriatr Psychiatry*, 18 (12); 1093-1102, 2010
- 5) Carlson, M., Clark, F., Young, B.: Practical contributions of occupational science to the art of successful ageing: how to sculpt a meaningful life in older adulthood. *J Occup Sci*, 5 (3); 107-118, 1998
- 6) Clark, F.: Reflections on the human as an occupational being: biological need, tempo and temporality. *J Occup Sci*, 4 (3); 86-92, 1997
- 7) Clark, F., Azen, S. P., Zemke, R., et al.: Occupational therapy for independent-living older adults. A randomized controlled trial. *JAMA*, 278 (16); 1321-1326, 1997

- 8) Clark, F., Jackson, J., Carlson, M., et al.: Effectiveness of a lifestyle intervention in promoting the well-being of independently living older people: results of the Well Elderly 2 Randomised Controlled Trial. *J Epidemiol Community Health*, 66 (9); 782-790, 2012
- 9) Dickie, V.: What is occupation? Willard & Spackman's Occupational Therapy, 12nd ed (ed by Schell, B., Gillen, G., et al.). Lippincott Williams & Wilkins, Philadelphia, p.2-8, 2014
- 10) Fratiglioni, L., Paillard-Borg, S., Winblad, B.: An active and socially integrated lifestyle in late life might protect against dementia. *Lancet Neurol*, 3 (6); 343-353, 2004
- 11) Hitch, D., Pépin, G., Stagnitti, K.: In the footsteps of Wilcock, Part one: the evolution of doing, being, becoming, and belonging. *Occup Ther Health Care*, 28 (3); 231-246, 2014
- 12) Jackson, J., Carlson, M., Mandel, D., et al.: Occupation in lifestyle redesign: the Well Elderly Study Occupational Therapy Program. *Am J Occup Ther*, 52 (5); 326-336, 1998
- 13) Jackson, J. (小田原悦子訳): 老年期に意味ある存在を生きる. 作業科学—作業的存在としての人間の研究—(Clark, F., Zemke, R. 編, 佐藤 剛監訳). 三輪書店, 東京, p.373-396, 1999
- 14) Jessen, F., Wiese, B., Bachmann, C., et al.: Prediction of dementia by subjective memory impairment: effects of severity and temporal association with cognitive impairment. *Arch Gen Psychiatry*, 67 (4); 414-422, 2010
- 15) Kanamori, S., Kai, Y., Aida, J., et al.: Social participation and the prevention of functional disability in older Japanese: the JAGES cohort study. *PLoS One*, 9 (6); e99638, 2014
- 16) Laurin, D., Verreault, R., Lindsay, J., et al.: Physical activity and risk of cognitive impairment and dementia in elderly persons. *Arch Neurol*, 58 (3); 498-504, 2001
- 17) Law, M., Baptiste, S., McColl, M., et al.: The Canadian occupational performance measure: an outcome measure for occupational therapy. *Can J Occup Ther*, 57 (2); 82-87, 1990
- 18) Makizako, H., Doi, T., Shimada, H., et al.: Does a multicomponent exercise program improve dual-task performance in amnesic mild cognitive impairment? A randomized controlled trial. *Aging Clin Exp Res*, 24 (6); 640-646, 2012

- 19) Matsubayashi, K., Ishine, M., Wada, T., et al.: Older adults' views of "successful aging": comparison of older Japanese and Americans. *J Am Geriatr Soc*, 54 (1); 184-187, 2006
- 20) Mountain, G., Sprange, K., Chatters, R.: Lifestyle matters randomized controlled trial of a preventive health intervention for older people: qualitative sub study with participants and intervention facilitators. *Clin Interv Aging*, 15; 239-253, 2020
- 21) Sabayan, B., Sorond, F.: Reducing risk of dementia in older age. *JAMA*, 317 (19); 2028, 2017
- 22) Silsupadol, P., Siu, K. C., Shumway-Cook, A., et al.: Training of balance under single- and dual-task conditions in older adults with balance impairment. *Phys Ther*, 86 (2); 269-281, 2006
- 23) 高木雅之, 其阿弥成子, 織田靖史ほか: 活動日記を用いた集団プログラムが地域在住高齢者の作業に対する満足度と与える効果—ランダム化比較試験—. *作業療法*, 39 (3); 301-310, 2020
- 24) Taylor, C. A., Bouldin, E. D., McGuire, L. C.: Subjective cognitive decline among adults aged  $\geq 45$  years: United States, 2015-2016. *MMWR* Morb Mortal Wkly Rep, 67 (27); 753-757, 2018
- 25) Verghese, J., Lipton, R. B., Katz, M. J., et al.: Leisure activities and the risk of dementia in the elderly. *N Engl J Med*, 348 (25); 2508-2516, 2003
- 26) Waldorff, F. B., Siersma, V., Waldemar, G.: Association between subjective memory complaints and health care utilization: a three-year follow up. *BMC Geriatr*, 9; 43, 2009
- 27) Wilcock, A.: A theory of the human need for occupation. *J Occup Sci*, 1 (1); 17-24, 1993
- 28) Wilson, R. S., Mendes De Leon, C. F., Barnes, L. L., et al.: Participation in cognitively stimulating activities and risk of incident Alzheimer disease. *JAMA*, 287 (6); 742-748, 2002
- 29) Wright-St Clair, V.: Being occupied with what matters in advanced age. *J Occup Sci*, 19 (1); 44-53, 2012
- 30) Yamada, T., Kawamata, H., Kobayashi, N., et al.: A randomised clinical trial of a wellness programme for healthy older people. *Br J Occup Ther*, 73 (11); 540-548, 2010
- 31) 横井賀津志, 藤井有里, 酒井ひとみ: 認知症予防事業における挑戦したい作業に

焦点をあてたアプローチの効果—パイロット研究—。作業科学研究, 11 (1); 39-50, 2017

32) Yokoi, K., Miyai, N., Utsumi, M., et al.: The relationship between meaningful occupation and self-rated health in Japanese individuals: the Wakayama Study. *Occup Ther Health Care*, 34 (2); 116-130, 2020

33) Yokoi, K., Miyai, N., Tsuji, K., et al.: Associations between deterioration

of self-rated health and occupational form among community-dwelling Japanese individuals. *Public Health Pract (Oxf)*, 2; 100147, 2021

34) Yokoi, K., Sakakibara, Y., Inamoto, T., et al.: Dual-task training combining cognitive tasks and occupations among Japanese community-dwelling older adults: a pilot study. *Occup Ther Health Care*, 1-8, 2021

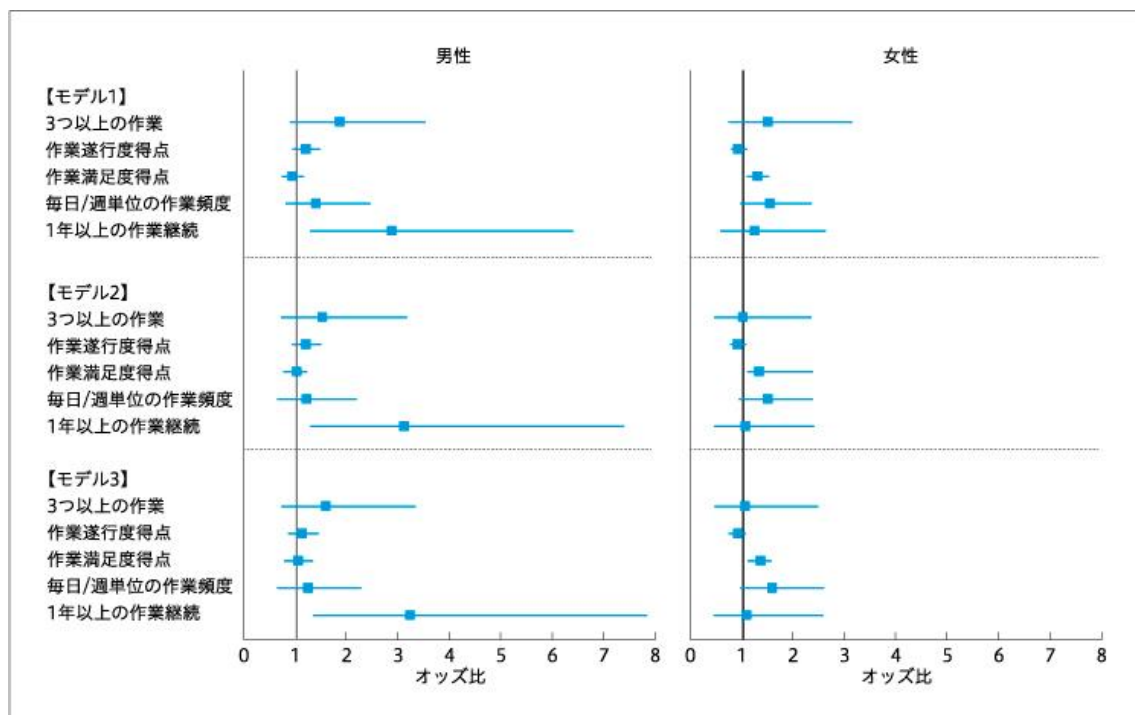


図1 性別による作業の特性と主観的記憶障害がないことの関連

モデル1: 独立変数を相互に調整, モデル2: モデル1に年齢と教育歴を加えて調整, モデル3: モデル2にbody mass indexと喫煙の有無, アルコール摂取の有無, 疾患を加えて調整

Figure 1: Relationship between characteristics of occupations and absence of subjective memory impairment by sex

Model 1: Independent variables mutually adjusted, Model 2: Model 1 adjusted for age and educational background, Model 3: Model 2 adjusted for body mass index, smoking status, alcohol consumption, and disease

表 作業に焦点をあてた主な介護予防プログラム

プログラム名	Lifestyle Redesign Program <sup>7)</sup>	予防的・健康増進作業療法プログラム <sup>24)</sup>	活動日誌を用いた集団プログラム <sup>23)</sup>	挑戦したい作業に焦点をあてたプログラム <sup>31)</sup>	作業に認知刺激を組み込んだ二重課題プログラム <sup>34)</sup>
介入形態	個別と集団	個別と集団	個別と集団	個別と集団	個別
概要	地域の作業ニーズ、適応戦略を基盤としたライフスタイル再構築のための作業療法プログラム	人間作業モデルの構成要素である「能力の自己認識」「価値」「興味」「役割」「習慣」など10の概念を用いた予防的・健康増進プログラム	作業に焦点をあてた活動日誌を用いた個別と集団プログラム	本人が挑戦したい作業を遂行するプログラム	暮らしに溶け込んだ二重課題プログラム
介入の流れ	講義 (didactic presentation) 情報交換 (peer exchange) 体験 (direct experience) 生活での発展 (personal exploration)	興味 (講義・演習) 役割 (講義・演習) 習慣 (講義・演習) 運動・処理・コミュニケーションと交流技能 (講義・演習) 能力の自己認識 (講義・演習) 価値 (講義・演習) 環境 (講義・演習) 人生を振り返る 作業の計画と実施	日々の作業経験の満足度をセルフモニタリング 講義・演習・話し合いを通じた学習 作業経験と満足についての知識の獲得 活動日誌を用いた記録・分析技能の獲得 作業を工夫する技能の獲得 満足度を高める作業についての目標設定 参加者相互のサポート関係の構築	認知症予防の理解を深める作業に関する講話 作業歴の記入 自身を定義する作業の列挙 挑戦したい作業の列挙 挑戦したい作業の選択 挑戦する作業の具体化 挑戦した作業の遂行と報告	作業の列挙 認知刺激の選択 認知刺激を組み込める作業の選択 作業に認知刺激を組み込んだ二重課題を暮らしのなかで遂行
効果	生活満足度	健康関連 QOL の身体の痛み, WHO QOL26 (環境領域)	作業に対する満足度, 生きがい感, 生活満足度	注意機能	遅延再生
介入期間	9 ヶ月間	約 6 ヶ月間 (2 週間に 1 回, 2 時間を計 15 回)	1 ヶ月間 (週 1 回, 2 時間を計 4 回)	5 ヶ月間 (月 1 回, 2 時間を計 5 回)	6 ヶ月間

Table: Main preventative care programs that focus on occupation

Program name

Lifestyle Redesign Program<sup>7)</sup>

Preventive and health promotion occupation therapy program<sup>24)</sup>

Group program using activity diaries<sup>23)</sup>

Program that focuses on the occupation the person wants to try<sup>31)</sup>

Dual-task program that incorporates cognitive stimulation into occupation<sup>34)</sup>

Type of intervention

Individual and group

Individual and group

Individual and group

Individual and group

Individual

Summary

Occupational therapy program for restructuring lifestyles based on occupational needs in the community and adaptive strategies

Preventive and health promotion program using 10 concepts, such as “self-awareness of abilities,” “values,” “interests,” “roles,” and “habits,” which are components of the model for human occupations

Individual and group programs using activity diaries focusing on occupation

Program that allows the person to try the occupation he or she wants

Dual-task program integrated into daily life

Flow of intervention

Lecture (didactic presentation)

Information exchange (peer exchange)

Direct experience

Personal exploration

Interest (lecture/exercise)

Role (lecture/exercise)

Habit (lecture/exercise)

Exercise, processing, communication, and interaction skills (lecture/exercise)

Self-awareness of abilities (lecture/exercise)

Values (lecture/exercise)

Environment (lecture/exercise)

Reflecting on one's life

Planning and implementing one's occupation

Self-monitoring of satisfaction with one's daily occupational experience

Learning through lectures, exercises, and discussions

Acquiring knowledge about occupational experience and satisfaction

Acquiring skills for recording and analyzing using an activity diary

Acquiring skills for devising one's occupation

Setting goals for occupations that increase satisfaction

Building a support relationship with other participants

Deepening understanding of dementia prevention

Lecture on occupations

Filling in occupation history

Listing occupations that define oneself

Listing occupations that one would like to try

Selecting occupations that one would like to try

Concretizing occupations one would like to try

Carrying out and reporting on the occupation one has tried

Listing occupations

Selecting cognitive stimulation

Selecting occupations that can incorporate cognitive stimulation

Carrying out dual tasks that incorporate cognitive stimulation in one's daily life

Effects

Life satisfaction

Physical pain, WHO QOL26 (environment domain)

Satisfaction with occupation, sense of purpose in life, life satisfaction

Attention function

Delayed reproduction

Intervention period

9 months

Approximately 6 months (once every 2 weeks for 2 hours, a total of 15 times)

1 month (once a week for 2 hours, a total of 4 times)

5 months (once a month for 2 hours, a total of 5 times)

6 months

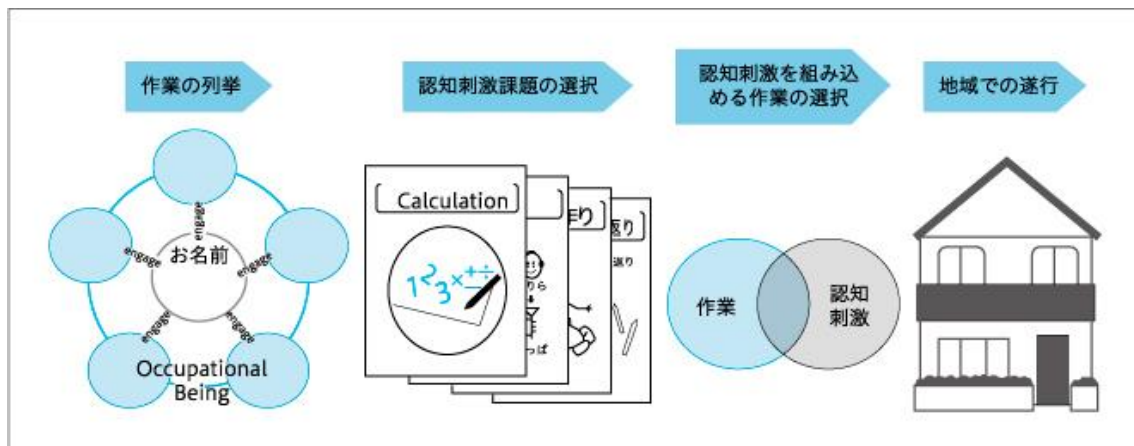


図2 作業に認知刺激を組み込んだ二重課題

Figure 2: Dual task incorporating cognitive stimulation into occupation