Community Health Nursing, Impact of COVID-19 on Community Health Nursing and Practical Application Utilizing IT

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01 introduction

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Take-home messages



02



What we as nursing researchers need to do to prepare for the next crisis is to reanalyze the content and value of direct care. It is not simply a matter of seeking new ways to replace past practices. We should focus on the black box of care, that neither patients nor nurses have yet been able to verbalize.

Old people in Japan

Let me touch on my research area, old people and COVID-19.

Japan is a country with many elderly people. Of the total population, 27% is over the age of 65 (of which less than 1% are foreign residents).

The number of elderly people living alone is also increasing, accounting for 17% of them.

Future expectations are that the population will decline and the elderly proportion will increase. Their care needs are a big issue as these have a great impact both economically and socially.

COVID-19 impact on the older population

30% reduction in physical activity time

I show the most understandable result of the impact of COVID-19 on elderly people.

A survey of the general elderly population in Japan reported that their physical activity time decreased by 30%, or about 1 hour, after the outbreak of COVID-19.

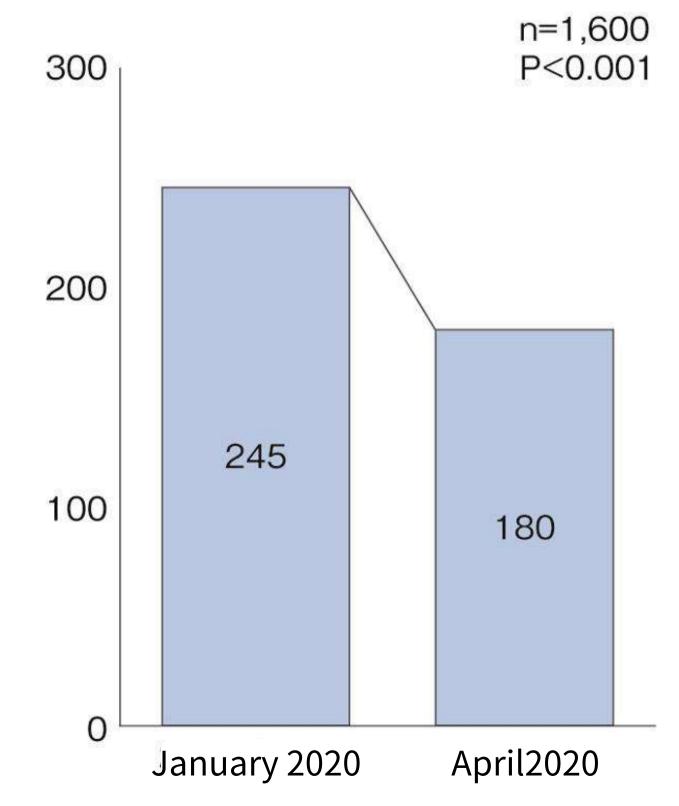
There was a significant decrease after the COVID-19 pandemic.

Table

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30% reduction in physical activity time

Physical activity time per day(minutes)



Yamada M, Arai H, et al.: Effect of the COVID-19 epidemic on physical activity in community-dwelling older adults in Japan: A cross-sectional online survey. J Nutr Health Aging. 2020; 24(9): 948-950. Japanese translation into English by OFFICE NARUSE

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Reduction of outdoor interaction report of JAGES

The table on the next page shows the changes in activities among general old people.

Activities performed indoors and the frequency of going out was reduced by less than 10%. However, outdoor activities are reduced by 50% in older people.

Table

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Reduction of outdoor interaction report of JAGES

Reduction of activity due to COVID-19

Activities (number of participants)*1		Number of peop	%
1. Habba at barre (1001) #0	maintained	1653	90.8
1; Hobby at home (n=1821) *2	reduced activity	168	9.2
2; Change in going out (n=3455) *2	maintained going out	3154	91.3
	reduced activity	301	8.7
3; Face-to-face contact with friends and acquaintances (n=1620) *2	maintained going out	907	56
	reduced activity	713	44
4; Volunteering (n=492)	maintained going out	282	57.3
	reduced activity	210	42.7
5; Sport (n=1196)	maintained going out	642	53.7
	reduced activity	554	46.3
6; Hobbies (n=1136)	maintained going out	519	45.7
	reduced activity	617	54.3
7; Learning/educational groups (n=388)	maintained going out	166	42.8
	reduced activity	222	57.2
8; Share skills and experiences (n=211)	maintained going out	121	57.3
	reduced activity	90	42.7
0. D: (- 2F0) #1	maintained going out	153	43.7
9; Passing places (n=350) *1	reduced activity	197	56.3

^{*1;} The 'n' number from 1 to 9 is the number of people who had some degree of these activities before the COVID-19 outbreak.

^{*2; 1} to 3 were those who maintained at least once a week and those who reduced. 4 to 9 are those who maintained at least once a month and those who reduced.

Learn from covid-19 spread

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With COVID-19, we have learned many things. Today I will explain about the susceptibility of older people's physical and social activities to outer shocks. Such activities have long been widely recommended as important health promotion practices. However, they were easily interrupted by the crises of COVID-19. We are required to develop intervention strategies to maintain the benefits that physical and social activities have brought to health, even in situations where face-to-face contact is difficult.



Elderly people with disability

Let's think about more vulnerable elderly people, who live with disabilities. About 18% of the elderly people in Japan require nursing care for their disabilities. About 65% of them have a moderate to mild level of disability. They live assisted by Long term care insurance services, including home care and adult day care.

Because of the functional decline, they are considered to decrease physical and social activities Although there is no clear epidemiological evidence, experts in long-term care services have been emphasizing the problem.

() / Daily Life of an elderly person with a disability

This woman is an elderly person who needs nursing care, which has been certified as middle disability level in Japan. She lives with her son and his wife, usually goes to Ault daycare (ADC) four times a week, and on these days, she stays at the ADC center for 7 hours. On other days, she spends the whole day in bed listening to the radio. For her, the days to ADC are "active" and the other days are "inactive."



08 Case study



After COVID-19 spread, I interviewed 26 old people with disabilities. For them, going out was a valuable opportunity for physical and social activity. Before COVID-19, their outings had gradually decreased due to the progression of their disabilities and aging, and their world gradually shrank. However, with the arrival of COVID-19, the speed at which their world was narrowing suddenly increased. Although we thought it would only be temporary endurance, especially in Tokyo, the request to curtail their outings lasted for more than two years.

One person described his life without interaction with others as "like being dead." How we could support them in a quickly narrowing world? The use of ICT may be a solution to this problem, but I am not so sure. Therefore, first of all, I tried to describe and analyze the "outside activities of people with disabilities" to seek future solutions.

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Activities within ADC: Physical Activity

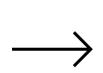
After COVID-19, most major resources of activity were ADC. Hence, we conducted observations at the ADC center. At the center, they do exercises and rehabilitation. Since these are simple exercises, they can be done at home. However, elderly people are often not motivated to do them on their own. This is because they are constantly exposed to giving up on their future, saying, "I'm not going to grow up," and it is difficult for them to get positive motivation. However, being cheered on by friends and receiving guidance from a therapist makes them exercise, even if they do not have enough motivation. In addition, when in a group, the harmonizing effect and sense of competition encourage exercise.

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Activities within ADC: Social Activities

What about social activities? They were enjoying casual chatting, encountering new hobbies and their own possibilities, and being proud of their polite behavior like younger independent adults. These enjoyable times and encounters with new things seemed to buffer the narrowing of their world of them. They also seemed to get "opportunities for self-protection through self-pity" and "opportunities to confirm their social position throughout the comparison." In addition, they were working on "confusion and adjustment of their self-image."





Self-pity

This is an example of self-pity within ADC. One disabled female behaved like a central person in the older women's group (two to four persons). Two researchers recognized her as playing a tragic heroine, but with smiling. She said, "About my physical disability, I feel inferior…and I want to die comfortably! (with a quick wave of her hand up in the air) ··· I think so every day." Every ADC day, she looks around well and performed self-pity when only her timid friends or kind ADC staff were near her.



Now, let us consider how ICT can supplement the benefits that disabled old people were getting within ADC centers.

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With the widespread of COVID-19, ICT is the one thing that has rapidly caught the attention of care providers. Thinking about ICT will encourage the discussion about Al and IoT. I visited the Taiwan Innotech Expo last Sunday and learned a lot of information technologies are trying to grasp human needs, and AI and IoT challenges are introduced into health care. I found that AI-assisted medical diagnosis and IoT activation for physical assessment were the major topics there.

Elements for maintain benefits of PS/A within ADC

Elements		ICTs as proxy instruments	
Individual care	Direct care	Difficult	
	Guidance		
Communication	Chating	Partially applicable	
	Counseling		
Looking Around	Social comparison	Looks difficult	
	Harmonics		
	Seeking good peoson		

1 Elements for maintaining benefits of PS/A within ADC

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This table shows the abstract of elements for maintaining the benefits of activities within ADC. About individual care, guidance from professional therapists could be covered by good ICT. There are a number of reports using ICT to guide physical exercise. When thinking about communication, one-on-one chatting and counseling could be covered, although the problems of equipment use or communication barriers with disabilities need to be solved. However, group chatting or counseling looks difficult. The difficulties are associated with the ADC environment for "looking around." Elderly people with disabilities seek their optimal behavior and position in the group. A Japanese word for this action is "kyoro- kyoro." In English, it means "looking around." They did "kyorokyoro" for social comparison, harmonics, and seeking a good person for self-pity or counseling.

Maintain social activities

For one-on-one conversations, ICT may be a good substitute, This seems to be difficult to do with ZOOM, which we are using now. Prior research has reported that in group online meetings, it is difficult to savor the kind of contingent, an interactive conversation that one experiences because it is difficult to see eye-to-eye with others and know in which order to speak. There is a definite lack of decision-making resources for participants.

What about SELF-PITY? Can she, as I have shown before, perform the same actions in a ZOOM setting? Some may be able to do so, but it does not seem to be easy for everyone.

But in the future, when ICT allows "kyoro-kyoro", it would be helpful for providing similar benefits for disabled elder people while social restrictions.



What we expect from ICT.

Elderly people with disabilities received activity benefits from group nature, throughout "kyoro-kyoro" action. I would be interested in developing new instruments with "kyoro-kyoro."

I expect future development of ICT for disabled old people, however; my concern with the recent ICT boom is a loss of deeper needs analysis. We should not precede only efforts to supplement traditional care by using ICT.

When we work on this, the discussion should start with "what should be done" rather than "what can be done." Because I believe that is the basis of nursing and the only way to get closer to the truth. Even if the steps are slow and modest, they should be done.



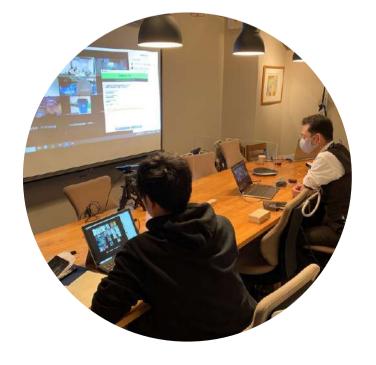
New Challenges

Here is a short summary of research/actual activities that I have done with people who support the lives of elderly people who need care. They are all challenging, but I think they will be helpful to someone who is starting something new.

- 1; Buddhist peer-support group for family caregivers / Yasuragi-cafe
- 2; Online chart/feedback system for ADC caregivers / KUKUnoCHI
- 3; Peer group for LTC administrators / TAKASHI's Coffee chatting













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Buddhist peer-support group for family caregivers/

Yasuragi-cafe

Here is a new challenge of an online peer support group for family caregivers in a community. What is interesting is that the operating body of the group is a temple. Participants had gathered at temples, but after covid-19, they used ZOOM. Interestingly, many people get the impression that when the ZOOM is delivered by the abbot with a temple background, participants behave like they are sitting inside the temple. Many people find that they can talk more honestly there than in hospitals or community care centers. Previously, I had thought that geographic effects could not be brought to ZOOM, but it seems possible. I would like to analyze this mechanism.

15 Online chart/feedback system for ADC caregivers/ __ KUKUnoCHI

I would like to touch on the topic of ADC staff. Electronic medical records have recently been introduced to ADCs as a tool to assist in information sharing. At the same time, the Japanese government began a new system in FY2021 with the goal of digitizing long-term care chart data and accumulating it on a national scale. This is part of a larger trend toward the computerization and sharing of data from the Long term care field. However, digitization of care data is not widespread enough, possibly because many managers and caregivers in long-term care facilities, including ADC, are not good at using ICT. A deep-seated allergy remains to ICT, both in management and practice.

To break through this, I am working with a systems company to develop medical records for ADC. Using that company's data, I am holding online salons to disseminate the aggregated results to LTC managers and staff. Each salon lasts 30 minutes, and participants encourage each other to share onsite concerns related to the day's theme and think about ways to improve the system. It seems effective to promote digitally friendly ADC agencies.







Peer group for LTC administrators/

TAKASHI's Coffee chatting

Shortly after the outbreak of COVID-19, I heard that LTC administrators felt lonely and isolated, then started an online salon for them. Now it has developed into an online salon where people from various fields learn together. Not only people related to care, but also people such as film directors, theatre company members, company employees, elderly people from overseas, and officials who deal with social issues gather here. I had the opportunity to collaborate in a stage play and the production of a film about infectious diseases or family caregiving There is a need in society to talk with nursing researchers. Expectations for nursing researchers will be broadened. I am glad that there is a channel where I can interact with and contribute to the world.











Closing

Today I have focused on elderly people, especially those who have disabilities and need care. We can expect ICT to improve health care, but our first work should be analyzing human needs in the current and future context. For example, now I am focusing on individual behaviors and needs in a group nature.

What about group nature in your country, or in your expertise? And what do you think about our mission in introducing ICT into your fields? I hope to hear your idea, and if possible, collaborate with you. Thank you.