Comparative research of childcare systems between Finnish Neuvola Service Design with Japanese services

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Abstract

The Japanese government has planned by 2020 to introduce the Finnish Neuvola System, a fundamental social childcare system that covers the period of pregnancy to child care. The purpose of this research is to clarify the conditions for high quality of Neuvola service, comparing childcare of Finland and Japan. First, the social systems of Finland and Japan, legal actions and other related social backgrounds are covered. Following this, the results are analyzed. Secondly, the results of interviews in Finland with Neuvola public health nurses and three typical Neuvola users, including a father, mother, and pregnant woman are presented. As a result of survey, six conditions were identified as the basis of Neuvola services: personal health checks, facility preparation, pleotropic care, communication through mutual dialogue, customized information and management of service provider quality. In a society where nuclear families are increasing, it is harder to care for children without someone's support. In comparing Finnish and Japanese childcare systems, the Finnish system perceives childcare as a social matter. In the Neuvola System, people are always open to discuss about any worries or queries. In Japan, the system is closed toward personal matters and private treatment options are not adequate. This is a major factor in larger problems that exist in the Japanese system.
The results are discussed in relation to previous studies of participatory roles in social health care services in the Japanese government and users of these services, leading to the proposal of a Japanese childcare service design.

Keywords: Service Design, Welfare, Social, Childcare, Government

Declining birth rates are a serious social problem in most developed countries. The Japanese Cabinet Office now requires that local governments throughout Japan put in place a "project for comprehensive support of the child-raising generation" by 2020. As a reference model, we adopted and promoted the *Neuvola* public childcare support system of Finland, which involves childcare from pregnancy onwards. Neuvola is literally translated as "a place for advice," but is synonymous with "maternity clinic." Whether the comprehensive support project for the child-raising generation will halt the declining birth rate in Japan depends on whether the actual service is user-friendly and preferred by the service provider.

Purpose

In this study, we aimed to compare the childcare support services of Japan and Finland and extract commonalities and differences between them. Further, on the basis of such differences, we aim to reconstruct Neuvola from the perspective of service design, and identify the conditions required to provide quality support at Neuvola. [(1)]

Based on the conditions found, the final aim of our whole research was to elucidate the childcare service needs suited to the actual circumstances of the Japanese population.

Research methods

Our literature review involved (1) investigation of Neuvola, (2) investigation of previous studies regarding the design of Neuvola, and (3) comparison of the social systems for childbirth and childcare in Finland and Japan. A field survey in Finland involved (1) interviewing Neuvola service providers, (2) interviewing Neuvola service users.

Literature review 1: Investigation of nevola

Neuvola refers to support facilities offered in Finland for one-stop childcare from pregnancy onwards. Established in 1944, it has more than 70 years of history and its facilities are used by 99.8% of the parents and children born in Finland.[(2)] The service is credited with a marked rise in the total fertility rate in Finland (1.9 in 2012). Neuvola provides a means for the mother, child, and wider family to consult the same public health nurse at a single location. This "Neuvola nurse" is then their family health specialist from pregnancy until the child entered school and provides a range of services (e.g., medical check-ups) to all family members, irrespective of nationality and family status. If needed, the Neuvola nurse also makes referrals to specialist services. Broadly, the Neuvola service is divided into prenatal "maternity Neuvola," and postpartum "children's Neuvola." All services during both periods are provided free of charge.

Literature review 2: Investigation of previous studies

Many studies have been conducted concerning the effects of Neuvola on nursing and welfare, but there are few studies concerning service design, especially comparing childcare support in Japan and Finland.

Literature review 3: Comparison of the social systems for childbirth and childcare in Finland and Japan

1. The social care system for childbirth and delivery in Finland

Finland has a long history of contributing to maternal and child health after having been declared an independent nation in 1917. The first Neuvola service was established for children in 1922 but was institutionalized in 1944 to include expectant and nursing mothers.[(3)] Since then, local governments have been obliged to establish Neuvola services, which led to nationwide popularization after 1945.

Regarding social security, a maternity package was legislated in 1937. As part of this package, mothers received 140 euros in cash or were provided with a childcare package as well as 263 days of leave. This leave includes 105 days of maternity leave for use exclusively for the mothers' pre- and post-partum and 158 days of parental leave that can be taken by either the mother or the father. To provide economic security during this period, approximately 70% of the income for this period is paid for immediately prior to taking leave[4].

From pregnancy until the child entered school, services could be accessed at regional Neuvola centers by children and their family. Neuvola provides prenatal check-ups, periodic health checks for infants, counselling, and home visits, among other services, with childbirth typically being performed in maternity hospitals.

2. The childbirth and childcare system in Japan

Child welfare before 1945 empowered the state to protect children in difficult situations; however, the Child Welfare Act of 1947 established child protection as an official welfare policy.[5] The "1.57 shock" of 1990 triggered the Japanese government to investigate countermeasures for the declining birth rate.[6] In 2013, the council for countermeasures against the declining birthrate focused on the need to improve and strengthen measures for continuous support of marriage, pregnancy, childbirth, and childcare. From this, "the project for support of the child-raising generation" was created.

As part of the social security system, covered by health insurance, 420,000 yen is granted per child in a lump sum after the birth of the child.[7] Furthermore, a maternity allowance is given for childbirth to the mothers with health insurance if their wages are not paid for a period from 42 days before birth to 56 days after birth. This sum is two-thirds of that person's standard daily wage, per day of leave.[8] Some maternity leave payments are covered by employment insurance if certain requirements are met and are paid at a rate of 67% of the daily wage at the start of the leave multiplied by the number of days' leave taken from birth until the child is 1 year old.[9]

Although there are differences between local governments, healthcare services in Japan are broadly structured as follows. Prenatal check-ups and childbirth are managed by obstetrics and gynecology departments. For these prenatal health checks, local governments distribute tickets for women to attend 14 health check-ups during pregnancy. Infant health checks and maternity education are conducted by doctors and public health nurses at health and welfare centers, while infant vaccinations are performed by pediatrics departments. Mass health checks are conducted at health and welfare centers on days determined by the local government. Infant
check-ups primarily comprise medical care child development screening.[10] Home visits are made by municipal public health nurses and midwives.

Field survey1: Interviews with public health nurses, participants and procedure

I visited the Tapiola Neuvola in Espoo, Finland, and conducted interviews of two nurses regarding the services provided and the facility. One participant was a senior public health

nurse (a woman in her 40s) who managed public health nurses at the facility. The other nurse was a woman in her 40s who carried out the general duties of a public health nurse, and in particular, took care of many foreigners.

I first benefitted from a private tour of the facility and were able to inspect the service while receiving an explanation of the instruments and equipment used by the nurses. The field survey was then conducted on February 24, 2017 (9:30–12:00) at the Tapiola Neuvola facility. The interviews focused on the types of services provided and on the details of Neuvola operations/management that are not known to the service user.

Field survey2: Interviews with Neuvola service users, participants and procedure

I conducted interviews with Neuvola users on February 24, 2017 (13:00–15:00 and 17:00–18:30). Three participants were included: female A, female B, and male C. Female A (age 32 years) was 37 weeks pregnant with her first child at the time of the interview, and both the mother and the child were healthy. Female B (age 33 years) was a mother with two infants, one was 0-year-old and the other was 1-year-old. The first infant was delivered by emergency Cesarean section and the second infant was delivered naturally. She used her closest Neuvola service for both the children. Male C also had a 0-year-old and a 1-year-old infant, and he used the Neuvola where his wife and children received health checks. Female A was interviewed in Helsinki (the largest city in Finland) regarding the pregnancy period, while participants B and C were interviewed in Espoo (the second largest city in Finland) regarding the childcare period from 0 to 6 years.

Participants were asked to complete a timeline of their personal experiences (Figure 1), using the Shostack (1984) service blueprint[11] that has been shown to be an effective technique for assessing service design. The vertical axis is divided into the points of view of the user experience and provided services from Nevola. The horizontal axis gives a timeline from pregnancy until the child entered school. The event timeline helped structure interviews regarding the services provided at Neuvola, how users perceived those services, and any problems or possible improvements.

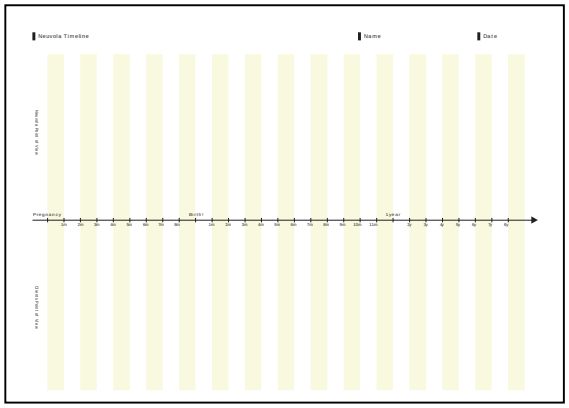

Figure 1: Event timeline

Results

Literature review

Childcare support services in Japan and Finland were compared by dividing them into pregnancy and childcare periods (Figures 2[12] and 3) [13]. In the tables, the horizontal axes represent time and the vertical axes are divided into the service provision of Finland and Japan.

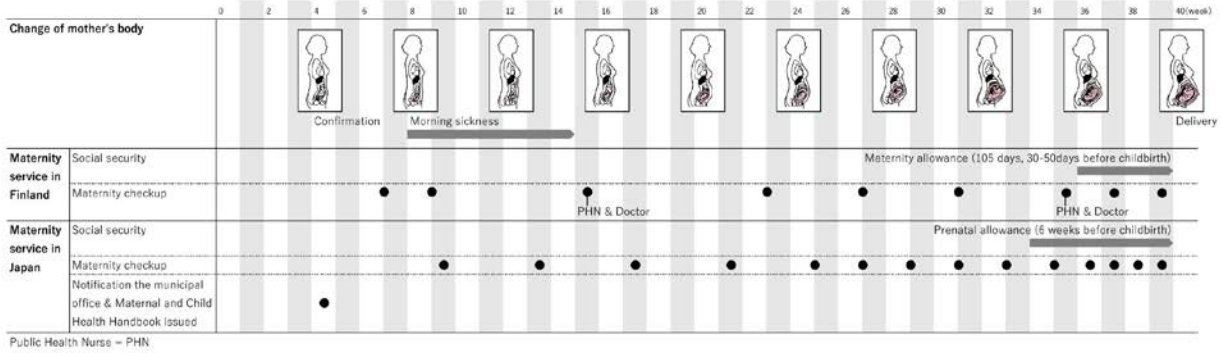

Figure 2: Comparison of services during pregnancy

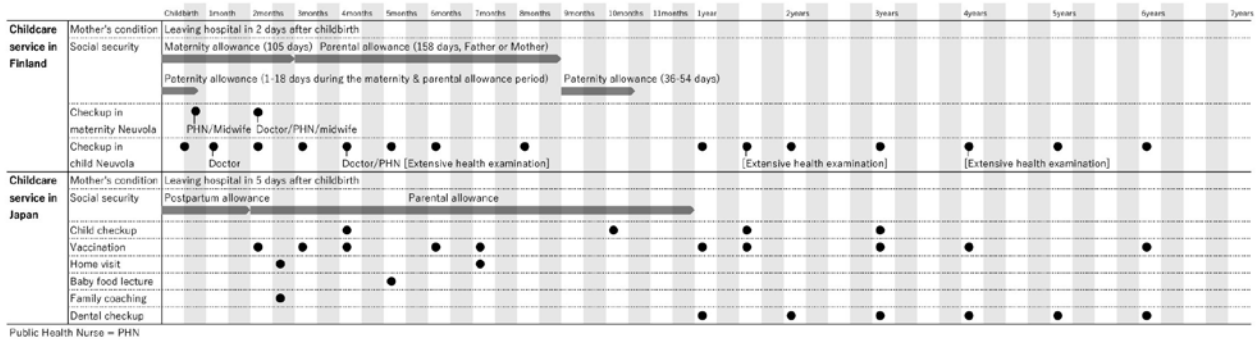

Figure 3: Comparison of services during the childcare period

A common area between the Japanese and Finnish services was the provision of regular childcare support after childbirth. However, there were several differences. In Finland, individual health checks were conducted at the same Neuvola. Furthermore, there were fewer health checks by doctors, and some practices traditionally performed by doctors were performed by public health nurses. In contrast, services in Japan were divided by the period and content of the check- up, and examinations were typically received at different facilities. Furthermore, prenatal check- ups were performed on an individual basis, whereas postpartum infant health checks were performed as mass health checks, with most medical care for children being provided by doctors.

Field survey1: Interviews with public health nurses

The interview results are summarized in Table 1.

Table 1. Services provided at Neuvola

Venue	Facility	Concentrating trend in the number of facilities in urban areas. There are 850 Neuvola facilities nationwide.
		The interiors are colorfully decorated with illustrations, and one needs to take off shoes at the entrance of the waiting room. There is a play room and a nursing room.
		The nursing room has a television with window to look outside and is a relaxing space.
		There is one room per public health nurse, and health checks for a patient are always performed in the same room.
		Each public health nurse customizes the interior of her room.
		The consultation rooms are equipped with a breastfeeding pillow and armchair.
		The consultation rooms are equipped with all equipment needed for health checks (e.g., scales for body weight, a sphygmomanometer, and a urine test kit).
		Signs are written in both Finnish and Swedish
	Accommodating families	Enough chairs are provided to allow several people to sit down.
		Toys and a play room are provided to make it easier to bring siblings along.
Care	Financial care	Basic health checks at Neuvola are conducted free of charge.
		A maternity package containing clothes and a feeding bottle is provided free of charge.
	Mental health care	The health check at 1 week postpartum is held at the user's home if mothers have difficulty leaving home.
		Counselling is provided.
		Extensive health examinations are provided.
		Psychological therapy, speech therapy, and physiotherapy at the 4-year check-up.
		Referral and cooperation with specialist facilities, as required.
		Special support requires an appointment and for the user to wait.
	Physical care	The health check is performed after conducting a urine test and completing a medical questionnaire.
		Body measurements, blood pressure measurements, urine tests, blood tests, and palpation are performed.
		Vaccinations are provided in line with the appropriate schedule.
		Dental and oral check-ups are provided for mothers and children.
		A doctor visits the Neuvola and conducts health checks on 4 occasions in total.
		Information and services are provided optionally according to the user's needs, in addition to minimum services such as check-ups and vaccination.
		An appointment is required to receive special support, and the user must wait for the consultation.
Communication	Procedures	Appointments can be made online using the Internet
		Telephone appointments are available.
		Appointments are taken and coordinated to allow 30–60 mins per person.
		Expert educated public health nurses are stationed permanently at one site.
		Open Neuvola sessions are held each Thursday afternoon, when anyone can receive a check without appointment.
		Neuvola is trying to finish counselling faster in case of Families that do not require additional information and support.
		When telephone enquiries/questions cannot be answered, or when they cannot be taken, users are called back.
		Service is provided at the same facility from pregnancy until the child entered school.
	Public health nurse and mother	Advice is given by experienced public health nurses.
		Counselling after several interviews to understand the individual and his or her background.
		Focus is on face-to-face dialogue and not on generic guidance.
		Referral for physiotherapy, muscle training, and mental health care as needed.
		Problem solving explored through counselling dialogue.
		Specialized skills learnt through ongoing training are used (e.g., starting with open-ended questions like "how do you feel?")
		For individuals who fail to attend health checks, contact is made by telephone and home visits.
		The presence or absence of domestic violence is enquired.
	Relationship with the family	It is recommended that fathers visit Neuvola.
		The father is questioned and included in the discussions.
		A questionnaire regarding the family situation and mental health status is distributed in advance.
		Questionnaire submission is not mandatory, and it is taken home to be discussed with the family.
		There is space to indicate whether the mother, father, or mother and father have completed the questionnaire.
		The questionnaire includes items regarding the sharing of housework, creating opportunity for dialogue.
		The questionnaire includes items regarding the sharing of childcare, creating opportunity for dialogue.
Information		Pregnancy and baby handbooks are distributed and information is recorded in writing.
		Personal data are input into a computer system. In the event of moving home or a second pregnancy, prior data can be accessed.
		When personal data is input, consent of the concerned individual is obtained. Furthermore, information held about the individual is disclosed upon request.
		Public health nurses introduce delivery styles including drug-free delivery, water birth, and painless delivery (chosen by approximately 60% of the Finnish women), and users are free to select a delivery plan.
		The guidebook "We are having a baby," which is edited by the Social Insurance Institution of Finland, is distributed free of charge.
		Information with the same content is provided to all users irrespective of their background or religious belief. Translated booklets are available in Swedish, English, and other common languages. In addition, interpreter can be accessed if needed.
		Parenting classes are used to provide opportunities for families that have experienced delivery to be shared and for information to be exchanged.
Quality of the service provider (public health nurse)	Education for public health nurse	Completion of 4 years' higher education at an ammattikorkeakoulu (AMK), which is a University of Applied Sciences and is equivalent to 4 years at a Japanese university, is a prerequisite.
		Practical training at Neuvola during studies at an AMK.
		After graduation, the public health nurses receive ongoing training.
		Legislation is in place to ensure that Neuvola services are of the same quality nationwide.
		Information is exchanged between public health nurses about how they conduct health checks.
	Work style	A single public health nurse looks after 30 pregnant women and 220-240 children.
		Before health checks, referring to the user's condition at the previous check informs what will be done at the current one.
		After the health check, the user's medical records are input into the system.
		Because the service is provided by appointments basically, there is no night duty and work is completed during set hours.
		The cost per user is calculated and cost management is required recently.
		Circumstances differ between urban and rural areas.
		Wages differ depending on where public health nurses work.

a) Venue
Each public health nurse worked in one room, allowing all procedures to be conducted in a single place with minimal disruption. To facilitate visits, family-friendly spaces were provided with a play room and chairs in the consultation room. Health checks were conducted by appointments to avoid congestion. The private rooms seemed to allow users to relax without worrying about other people watching.

b) Care
Care was provided in three forms at Neuvola. 1) Financial care, which involved providing free services and a maternity package (e.g., baby clothing and other items). 2) Mental health care, which involved the public health nurse providing emotional support and counselling. The recent inclusion of comprehensive health checks allowed nurses to support the entire family. 3) Physical care, including measurements, urine tests, blood tests, and vaccinations, which were performed by public health nurses and doctors.

c) Communication
More than 90% of the families approached Neuvola for the children entering school because care was provided by the same public health nurse and because Neuvola has high social recognition. Neuvola provided health checks and information to all individuals regardless of nationality and family circumstances. If needed, Neuvola offered consultation through specialist institutions.

d) Information
Neuvola respected the individual requirements of family, providing customized information based on circumstances. All information from health checks was consolidated in an electronic system to allow access from any Neuvola, which was an effective means of reducing the burden on users and public health nurses.

e) Quality of the service provider (public health nurse)
In Finland, public health nurses are specialists who receive specialist education in maternal and child health, requiring completion of a 4-year specialist course at a higher education facility. There are national regulations for the assignment of public health nurses, and once assigned, they must complete ongoing training, which we found led to improved quality. At the Tapiola Neuvola, each nurse managed approximately 30 pregnant women and 230 children. However, while the same services were offered nationwide, there was a possibility of individual differences because health checks are usually performed by one public health nurse.

Field survey2: Interviews with Neuvola service users

The results are summarized in Table 2 and can be detailed as follows.

a) Venue
All individuals were satisfied with the ease of access, and typically felt that these venues were places where they could relax.

b) Care

Users interacted closely with the public health nurses, such that even female A felt knowledgeable and comfortable during the process of childbirth. The users each reported calling the Neuvola service several times to seek advice after conception. They were satisfied not only with the physical care provided for mothers but also with the mental health care provided for families.

c) Communication

Anxiety about childbirth and childcare was alleviated through dialogue with a public health nurse. One-on-one exchange enabled individualized responses, with some users requiring different levels of support. In Finland, pregnancy and childbirth are typically performed through cooperation between the couple, so the couple was generally supported socially by Neuvola rather than by their parents. The public health nurse questioned the family at the health checks, and family participation was recommended at that time.

d) Information

All three users sought information from reliable specialists, such as doctors and public health nurses, that was suited to the individual's circumstances. Information from the Internet was considered biased and potentially unreliable because it could not be adapted to the individual's needs.

e) Quality of the service provider (public health nurse)

The users were satisfied with the care provided by and the awareness of their public health nurses. Furthermore, relationships of trust were built due to care being provided by the same public health nurse (e.g., users trusted that their secrets would be kept). However, Female A commented that she was unsatisfied with the services received because they did not have compatibility with the public health nurse. At Neuvola, the public health nurse in charge was the only contact point, and therefore, we found that an alternative contact point should be prepared in case of problem.

Table 2. The evaluation and needs of Neuvola users

Venue	+	Easy access
	+	Needs for facilities where children can play, such as children's centers.
	+	Neuvola provide spaces where users can relax like they do at home.
Care	−	Kits for urine tests that can be conducted at home are desired.
	−	Preparation and shopping for items required for the baby are enormous tasks.
	+	Neuvola provides physical care for mothers.
	+	Open Neuvola can be attended freely and can be mentally refreshing.
	+	Trivial questions can be resolved by telephone.
	+	Breastfeeding methods are taught at hospital.
	+	Users are satisfied with the maternity package.
	+	The basic principle that all individuals get the same service prevails.
	+	Users are referred to specialists, such as psychotherapists, if needed.
	+	Yoga is provided outside Neuvola.
	+	Appointments are easy to make for health checks.
	−	Immediately after childbirth, it is difficult to visit Neuvola just for blood tests.
	−	Additional postpartum services at hospital are expensive.
	+	Mental health care is provided for mothers.
	+	Mental health care is provided for fathers.
	−	There is anxiety because of no consultation or support with a doctor immediately before delivery if there is no specific problem.
Communication	+	Neuvola provides quick responses.
	+	Flexible responses are given in accordance with the individual.
	+	The service eliminates anxiety toward childbirth and childcare.
	+	There is no obligation forced by Neuvola.
	−	The users hope to obtain confirmation as to what they are doing and decide what is appropriate.
	−	Precise answers are not always given to questions.
	−	Despite wanting to change Neuvola, it is hard to decide what to change.
	+	There is an open atmosphere where anything can be talked about.
	−	It is tiresome being asked the same questions each time.
	−	Public health nurses are the only contact point for users.
	−	I want opportunities to communicate with other mothers.
	+	Communication is carried out with other mothers on social networking websites.
	+	Public health nurses ask questions to the family.
	+	Childbirth and childcare can be achieved with peace of mind, even in the absence of relatives.
	+	Even though grandparents do not live close by, there is no problem.
	+	Family members actively participate in childcare.
	−	While the children are small, there is a need to make more time for the family than for work.
Information	−	Interactive information exchange is desired.
	−	There is no mutual interactive information on websites.
	+	Information exchange through social networking services is effective.
	−	Parent classes are not necessary, therefore I did not attend.
	+	Information about childbirth methods is needed.
	−	Correction of information disparity.
	+	Public health nurses ask users if it is ok to record information pertaining to their maternity situation in the system.
	+	There is no problem with the data management system.
	−	I have distrust in the huge amount of information on the Internet.
	−	Authentic information from specialists is needed.
	+	Information is given that is suited to the individual.
	+	Information is provided at the most appropriate moment.
Quality of the service provider (public health nurse)	+	Public health nurses are competent at providing care and are aware of the needs.
	+	Standard services can be received regardless of the individual or place.
	+	Relationships of trust were build with the public health nurse, and users trusted that their secrets would be kept.
	−	Sometimes users do not get along with their public health nurse.
	−	The father did not want to go to the Neuvola because he disliked the public health nurse.

+ Positive, - Negative

Discussion

In this study, we performed a literature review and field survey to clarify the factors underpinning the provision of quality childcare support services at Neuvola. Here we discuss each item that we identified.

1. Personal health checks

Health checks in Finland were performed on an individual basis from pregnancy until the child entered school, and conversations were based on private discourse about the couple's relationship, the surrounding support, the presence or absence of domestic violence, and the user's financial situation. Users gained peace of mind and answers to their questions at individual health checks. This was not only an advantage for the user but also for the service provider, because it helped them gain deeper understanding of individual situations. We think this approach helped practitioners detect and resolve problems before they became significant issues.

2. Establishment of the venue

Family participation was recommended in Neuvola facilities, with playrooms and chairs being provided for the whole family. Furthermore, the services were completed at a single facility, resulting in minimal burden and confusion for the user. This may account for the high rate of participation in the Neuvola service.

3. Pleotropic care

In Japan, doctors provide medical care for children. However, this is not a holistic approach because no matter how healthy a child is, it is difficult to raise the child unless the whole family is mentally and physically healthy. Although the approach of Neuvola to provide physical, mental, and financial support to the entire family may generate extra work, when looking at the growth of children in the long-term, the approach may actually be more effective.

4. Communication through mutual dialogue

The core service provided at Neuvola was communication. Ensuring sufficient time to talk meant that everyone could receive advice about individual concerns and could ask questions regarding their children and family. As a result, public health nurses could resolve problems early and users appeared to gain peace of mind by having access to a reliable source of advice (i.e. the public health nurse). This created a relationship of trust between the provider and the user.

5. Customized information

Users sought services that were not uniform but that were instead suited to the needs of the

individual. Indeed, questions, anxieties, and problems that arise during pregnancy and childcare may require different approaches. Therefore, one user might only need one-way information provided by books and the Internet; but, if misjudged by the user, this could increase anxiety and problems. Nevertheless, we believe that providing accurate advice to the user enhances their peace of mind and it is best delivered directly by the public health nurse.

6. Management of service provider quality

At Neuvola, users were essentially taken care of by the same public health nurse for 7 years from pregnancy until the child entered school. Communication over this period was the reason for the relationship of trust; however, we believe that this is underpinned by an environment where public health nurses can keep working along with specialist education as well as legal and work systems.

Conclusion

As a nuclear family becomes the norm, it is difficult to raise children without support from external sources. Therefore, the provision of support that addresses the individual questions and problems of the patients (e.g., Neuvola) is an important public service. Given that birth rates are expected to continue to decline in Japan over time, the improved fertility rates in Finland and the positive responses from user interviews indicate that services that provide care for the entire family are important to the child-raising generation. The question as to whether childcare is facilitated at social and individual levels will be key to dealing with the declining birthrate in Japan. Improving social services could lead to a society in which two or more children are born per family, with the peace of mind that appropriate care will be provided for them.

Future tasks

Introducing a Neuvola-style childcare support system in Japan would be met with obstacles and difficulties due to differences in social systems. However, there remain many facets of the Neuvola system that could be adapted and used to improve the quality of the Japanese childcare support services. We plan to conduct a survey of the childcare support services offered in Japan to help understand the current situation, before designing a Neuvola- like service that could work in Japan.

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