

## Research Article

# Usefulness and Challenges of Sick Child Care Services for Single Mothers

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## Abstract

**Objective:** To clarify the usefulness and challenges of sick child care services based on users' characteristics, the use and evaluation of such services by single mothers were examined.

**Methods:** A qualitative, descriptive study. Semi-structured interviews were conducted involving 10 single mothers with their written consent to examine: the sick child's age, the parent's coping with the child's sickness, and sick child care service use.

**Results:** A large number of the single mothers were low-income, non-regular employees. They needed to continue working even when their children became sick. A daily service fee was too high for them, and forced them to adopt measures that negatively affected their children's health and safety, such as taking them to nursery schools despite the presence of sickness. They regarded high-quality medical, nursing, and child care services, detailed recording and reporting, and parental guidance provided in sick child care facilities as useful. They trusted facility staff giving considerations for single mothers.

**Conclusion:** For single mothers with limited sources of personal support, sick child care services were important social resources for parenting, developmental support, and health assurance. The results suggest the necessity of measures to accommodate service users' needs, such as reducing service fees for low-income households.

**Keywords:** Sick child care services; Usefulness for sick children; Usefulness for single mothers.

## Introduction

The number of single-mother households is increasing annually, as it increased from 799,000 in 1993 to 1,238,000 in 2011 [1]. The necessity of simultaneously parenting and working forces nearly half of single mothers to choose low-wage, non-regular jobs not requiring business trips or overtime work [2]. However, when their children become sick, they face difficulty in maintaining their incomes and jobs due to non-regular employment. Limited sources of personal and financial support for single mothers (without a husband) restrict measures they can adopt to cope with their children's sickness, resulting in a high turnover rate among them due to child care.

Sick child care services [3] are being systematically provided to temporarily care for sick children, whose parents cannot provide such care at home due to work or other causes. In 2015, approximately 610,000 sick children used 2,226 sick child care facilities [4]. Such services aim to provide comprehensive care, meeting children's

developmental needs [5]. However, they have mostly been evaluated from the perspective of work support [6,7], and their usefulness in terms of children's development and health, as well as parenting support, has rarely been examined [8-10]. Furthermore, although they target single mothers and double-income nuclear families, these users' needs have not been sufficiently considered on evaluation [11,12].

To develop sick child care services meeting single mothers' needs, it is necessary to clarify the status of service use based on the characteristics of single-mother households, single mothers' views on such services, and related challenges. This interview-based study aimed to provide a basis for appropriate measures by examining the usefulness and challenges of sick child care services for single mothers.

## Methods

A qualitative, descriptive study was conducted as part of a research project, entitled: The examination of child-raising support to promote parents' sense of security towards and appropriate use of pediatric emergency medical care services. From February to April 2011, semi-structured interviews were conducted with 10 single mothers living in a prefecture. This paper reports the results regarding the usefulness of sick child care services for single mothers.

The inclusion criteria were as follows: (1) using sick/convalescent child care services; (2) having a child/children aged 6 years or younger; (3) belonging to a household consisting of a mother and a child/children; (4) working full-time; and (5) having used pediatric emergency (out-of-hour) services. Single mothers with a child/children aged 6 years or younger were selected for the following reasons: many local governments limit the use of sick child care services to preschool-aged children (6 years old or younger) [13,14], and about 90 % of care usage was for children under 6 years old [6,15]. Additionally, the mean annual income for a single mother with a preschool-aged child or younger is the lowest among single mother households [16]. The exclusion criteria were as follows: (1) having a child/children aged 15 or older or living with other adults; and (2) living at a distance of 30-minute drive from parents (the child's grandparents) or other supporters.

The semi-structured interview focused on the usefulness of sick child care services for single mothers and their child. Demographic variables, the single mother's resources, their coping ability for child rearing or sick child care, their usage conditions and needs for sick child care services, and their usage conditions and needs for pediatric emergency services were examined using an interview guide.

The mothers were recruited through our website and the snowball sampling method. To safeguard the mothers' privacy, interview locations were set in institutions where mothers with children are commonly seen. Considering the working hours and the convenience of single mothers, the interviews were conducted in private rooms at four community centres or the researchers' institution in A prefecture each day between 9:00 and 20:00; the travel time from the single mothers' workplaces or houses to the interview location was about 30 minutes. During the interview, their children were cared by a sitter in interview room to protect the security and peace of their children.

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The study was approved by the research ethics committee of the researcher's institution (approval number: Heisei 22-75). With their written consent, individual mothers were interviewed once for approximately 1 hour in an appropriate room to ensure their privacy. With permission, the mothers' statements during the interviews were recorded. To prevent identification of individuals, the obtained data were protected using linkable anonymization.

Each mother's recorded statements were organized as narrative records to classify and encode their contents. Common contents were labelled to create categories and sub-categories based on commonalities. In the following section, core-categories, categories, sub-categories, labels, and codes are shown in ( ), [], {}, <>, and "", respectively.

## Results

### 1. The single mothers' demographic variables

There were 10 single mothers, with a mean age of 31.9 (SD: 2.92). The sick child's mean age was 4.33 (2.13), and the mean number of children was 1.44 (0.73), as 6, 2, and 2 mothers had 1, 2, and 3 children, respectively.

### 2. Classification of the single mothers' statements

The single mothers' statements were classified into 5 core-categories: (status of sick child care service use), (contents of sick child care services), (usefulness of sick child care services), (challenges of sick child care services), and (desires related to sick child care services). They were further classified into 106 labels, 52 sub-categories, and 18 categories.

#### 1) Status of sick child care service use (Table 1)

Regarding sick child care service use, [employment], [reasons for using], and [service use] were extracted. The single mothers worked full-time and {at weekends} under poor working conditions, such as {non-regular employment} and {temporary employment}. Some

of them resumed to work immediately after an 8-week mandatory postnatal leave from work defined by the Labor Standards Act [17].

The single mothers used sick child care services due to not only {difficulty in taking a break} from work, but also the necessity of maintaining their incomes by continuing working, as explained by {single mothers' situation} and {income maintenance}. {No husband} also explained that it is difficult for a single mother to leave from work every 2 days in turn without a husband.

The most frequent diseases in their children were fever and infection. The duration and frequency of service use was 1 to 2 days and 3 times per month, respectively, in general. In the case of influenza, the service was used for 5 consecutive days based on the School Health and Safety Act that prohibits those infected to attend school for 5 days [18].

{Single mothers' situation}

<I cannot stay away from work, because I have to bring my child up.>

<Having become the breadwinner after divorce, I cannot take a break from work too many times.>

{Income maintenance}

"They tell me to take a rest, and stay close to my child, but we cannot get along if I take a break from work, as I am a temporary staff, and they pay me by day/hour. So, while appreciating their kind words, I have to continue working even when he is sick."

#### 2) Contents of sick child care services (Table 2)

The contents of [care for the child] provided in sick child care facilities were represented by {high-quality medical and nursing services}, and {high-quality child care}. Similarly, those of [care for the parent] were explained by {detailed recording and reporting}, {parental guidance}, and {considerations for single mothers}.

Sick child care services created appropriate environments for sick

Category	Sub-category	Label
Employment	Non-regular employment	I am not a regular employee.
	Temporary employment	The 1-year contract for me may not be updated.
	Working at weekends	I am forced to work 2 or 3 weekends a month.
	Prolonged work hours	I work until 19:00.
	Resumption of work immediately after childbirth	I resumed work 2-3 months after childbirth.
Reasons for using	Single mothers situation	I cannot stay away from work, because I have to bring my child up.
		Having become the breadwinner after divorce, I cannot take a break from work too many times.
	Income maintenance	We cannot get along if I take a break from work, as they pay me by day/hour.
		At weekends, I used to work while carrying my newborn on my back.
	Difficulty in taking a break	I had no way but to take him to my workplace with me even when he was sick.
		Working a fixed shift, there is no substitute for me.
		I cannot take a break, because I have a duty they allocate to me.
	No husband	If I had a husband, we would be able to take a break from work every 2 days in turn. But this is impossible for a single parent.
Service use	Number of uses/month	Once/month, 3 times/month, 15 times/6 months.
	Duration/use	1.2 days
		3.4 days (mumps)
		5 days (chickenpox or influenza)
		15 days/month (after a 1 week use, using the service for another week at intervals of 2.3 days)
	Diseases/ symptoms	Fever and infection (respiratory: influenza, chickenpox, and mumps; and digestive symptoms: vomiting and diarrhoea)
		Asthma

**Table 1:** Status of sick child care service use.

Category	Sub-category	Label
Care for the child	High quality medical and nursing services	Pediatric consultation services are available every day.
		It is possible to immediately seek pediatric services.
		My child can take his medicine, as instructed.
		My child does not refuse to take his medication.
		They also remove nasal mucus.
		They provide careful and sufficient care that is difficult to provide at home.
		Palatable and warm meals are delightful when one is sick.
		They provide lunches and snacks in accordance with the pathological condition.
		Patients are isolated based on the type of contagious disease.
		The use of pediatric services (consultation and treatment/prescription) in the morning before taking my child to the sick child care facility is very helpful for me.
	High quality child care	Each child is cared for at almost all times by 1 nursery teacher.
		I feel secure, because they deal with my child face-to-face.
		My child has great fun, creating various things with them.
		My child spends time with a sense of security in the facility
Care for the parent	Detailed recording and reporting	They record all daily events in detail, so that I can recognize them.
		They use recording sheets to enter the body temperature, appetite, and defecation frequency, with the child's appearance and statements in detail.
		They report the contents of the child's play activities and statements.
		I submit the child's records offered by the sick child care facility to the nursery school for reporting.
	Parental guidance	When we leave, they provide guidance for me to appropriately deal with each situation.
		They also take over information about medication, such as the frequency of inhalation therapy.
	Considerations for single mothers	They predict the course of the child's pathological condition.
		I cope with the child's illness in collaboration with facility staff who play a role in parenting. We are just like partners.
		They also listen to me to share my personal issues.
		I can trust them, because they understand single mothers' financial and living conditions, and talk to me in consideration of these issues.
		Having established trust-based relationships with facility staff, now we have a place to go. That is what I appreciate.

**Table 2:** Contents of sick child care services.

children, and supported their healthy development. Before visiting sick child care facilities, sick children were examined by pediatricians. Those with infection were cared for in isolated rooms. Care provided in sick child care facilities also covered treatment and nursing, such as nasal mucus suction and oral medication use based on schedules which are difficult for nursery schools and households, as well as the provision of meals in accordance with the pathological condition. Each child was cared for at almost all times by 1 nursery teacher, and provided with environments to safely and freely enjoy play activities.

Facility staff chronologically recorded each child's pathological condition, details of care, and play activities to be reported to his/her parent when leaving. They also explained the contents of care, status of recovery, predicted course of the child's pathological condition, and care approaches to be performed at home. {Considerations for single mothers} explained the situation of single mothers who struggled to work while parenting and facing economic difficulties without support from a husband or parents. Such considerations given by facility staff reduced single mothers' mental distress and anxiety, and made sick child care services reliable for them.

[Care for the child]

"My child said that the lunch they provided was palatable, and they allowed him to play as he wanted. Being cared for at almost all times by 1 nursery teacher, he could enjoy activities in the facility. We have nothing to complain about sick child care services or teachers (staff)."

{Detailed recording and reporting} and {Parental guidance}:

"They take over information about the frequency of inhalation therapy. They also record my child's condition in detail, including his breathing. Such detailed recording makes me feel secure."

{Considerations for single mothers}:

"When using the facility for 1 week, they accurately recognize all symptoms occurring in my child. I can cope with his illness in collaboration with facility staff that plays a role in parenting. We are just like partners."

"They understand my financial and living conditions, and talk to me in consideration of these issues, and encourage me, saying: 'You are doing your best'. I can trust them."

3) Usefulness of sick child care services (Table 3)

The usefulness of sick child care services was represented by [before sick child care service usage], [the child's responses], [the parents' responses], and [the parents' actions]. Before starting to use sick child care services, {the parent's coping} methods were limited to taking a break from work or taking the sick child to the workplace. Regarding such a situation, 1 single mother, who had restricted her child's activities to prevent infection, evaluated sick child care services as 'contributing to children's freedom'.

Children who used sick child care services showed {positive

Category	Sub-category	Label	
Before sick child care service usage	The parent's coping	I took my sick child to my workplace.	
		I used to restrict my child's activities to prevent infection.	
	Co-workers' reactions	They tended to show a negative reaction, when I took a long break due to my child's influenza.	
The child's responses	Positive responses	It seemed that my child had great fun.	
		When we visited this facility for the first time, my child cried, finding it an unfamiliar place, but he quickly stopped crying. When I picked him up at the end of that day, he looked happy.	
		My child is very fond of the sick child care facility.	
		My child is attached to facility staff.	
		Whenever he becomes feverish, he says delightedly: "Let's go to the small nursery school".	
		My child recovers earlier in the sick child care facility.	
	Early recovery	The condition does not worsen or recur. Appropriate management promotes recovery.	
The parents' responses	Sense of guilt	I pity my child, but we have no other choice.	
		I feel sorry for my child, but this is inevitably necessary for us to get along.	
	Sense of security	I find it more secure to leave my child in care by professionals, rather than my parents or friends.	
		I am sure that it is better to rely on their quicker management than facing unclear situations alone.	
		Reduced distress	I find their services secure.
			Using these services, I do not have to put my child under uncomfortable conditions.
			I am relieved to see my child willingly go to the sick child care facility.
			With sick child care services available, I do not worry about my child's illness so much anymore.
		Satisfaction	I am very satisfied with sick child care services.
		Not using emergency medical services	If the family doctor provides consultation the next day, and there are prescribed medications for my child, I choose to care for my child by myself, rather than using emergency medical services.
	The appropriate management of my child's condition during the daytime by sick child care facility staff makes me feel like I can handle the situation.		
	Continuing working	I can work without anxiety even when my child has a fever.	
		I used to be very anxious about my capacity to bring my child up while working all alone, without a husband or parents. Now that sick child care services are available, I can work without worrying.	
	Appreciation	I greatly appreciate sick child care services.	
The parents' actions	Extended service use	Although an extra fee is charged, I extend service use by an extra day for security.	
	Early service use	My child's illness does not persist if I take him to the sick child care facility as soon as I find something wrong.	

**Table 3:** Usefulness of sick child care services.

responses}. Being cared for by facility staff and playing with them, they began to enjoy sick child care service use in their daily lives. They were attached to facility staff, and looked forward to revisiting the facility. Appropriate management prevented children's conditions from worsening or recurring, and promoted {early recovery}. In addition to high-quality child care, medical, and nursing services provided in sick child care facilities, children's positive responses to their services and early recovery enhanced the single mothers' {sense of security}, {satisfaction}, and {appreciation}, resulting in {reduced distress}. In these respects, they regarded sick child care services as the most important source of mental support for them. Taking actions, such as {extended service use} and {early service use}, they aimed to ensure their children's early recovery.

{The parent's coping}:

"In fear of possible infection, I used to prohibit my child to access places like shopping malls where there are many children with the common cold. When he asked me: 'Why can't I go to the mall?' I just

answered: 'It's too cold out there'. Now that sick child care services are available, I can let him go out without fear. I think such services contribute to children's freedom."

"At that time, I was working at a restaurant, including at weekends. It was soon after the birth of my child, and I had no way but to take him to my workplace when he became sick."

{Sense of security}

"I pity my child being left in others' care, but I can rely on these services, because he has great fun playing at the facility."

{Continuing working}

"Sick child care services are the most important source of mental support for me to continue working."

4) Challenges of sick child care services (Table 4)

As challenges of sick child care services, [service fees], [service hours], [quota], [availability], and [methods to reduce service fees] were

Category	Sub-category	Label	
Service fees	Daily service fees	It is difficult to bear 2,000 yen (without lunch/snacks).	
		Daily (lunch and snacks: 500 yen; extended services: 500 yen) and half-day service fees of 4,000 and 2,000 yen, respectively, are too high.	
	Service use for siblings	The service fee doubles if I have 2 of my children sick.	
		I am not sure whether I visit this facility to continue working or only to pay service fees.	
		It is unreasonable to pay 6,000 or 7,000 yen to use these services when my daily wage is a little more than 7,000 yen.	
	Long-term service use	It costs 10,000 yen to use the service for 4 days. They do not know how many hours I have to work to earn such an amount.	
		It is burdensome to use the service for 1 week (influenza/chickenpox).	
	Simultaneous use of nursery school and sick child care services	It is unbearable to simultaneously pay nursery school and sick child care services.	
	Lunch service cost	It is expensive, when considering that it only costs 250 yen/lunch at elementary schools.	
	Service hours	Late arrivals	I cannot avoid arriving at the office late, because the sick child care facility opens at 8:00.
		It is already 9:00 when medical consultation is completed, resulting in 1-hour late arrival at my workplace.	
		My co-workers' understanding of late arrivals due to a sick child is insufficient.	
		I am sorry for troubling my co-workers by coming to work late against my will.	
Early leaves		I leave the office earlier than usual when my child is sick.	
The child's burden		It must be burdensome for a sick child to wake up earlier to use sick child care services.	
		It is necessary to leave home at 7:00 at the latest, in order to arrive at the facility at 8:30 when it opens.	
Quota		Insufficient quota	It is not possible to confirm the availability of services beforehand.
			I cannot go to work if the quota is full.
			When influenza or chickenpox is prevalent, each sick child uses the service for 1 week, making it difficult for others to use it.
	The insufficient quota makes the service unavailable during the season of influenza.		
Availability	Insufficient number of facilities	Sick child care facilities are located at a distance in remote areas.	
Methods to reduce service fees	Half-day service use	I often use the service only for half a day (cost: slightly less than 1,000 yen), according to the grandmother's work schedule.	
	Not using sick child care services	If his condition allows, I take my child to the nursery school, because there are no subsidies covering sick child care services.	
		I quickly switch to the nursery school even if my child still has a runny nose, but this has resulted in recurrence on some occasions.	
	Leaving the child alone at home	In the case of my elementary school children, I leave them alone at home, and go to work even if they have a fever.	
	Care by siblings	With a sense of guilt, I made my older daughter take a break from her elementary school, and care for her sick brother throughout a day.	

**Table 4:** Challenges of sick child care services.

extracted. For the single mothers, it was difficult to bear the daily service fee (2,000 yen + 500 yen for lunch and snacks). To reduce service fees, they used half-day services, or took their children to nursery schools despite the presence of sickness. In some cases, the sick child was left alone at home, or an older sister was asked to care for her sick brother throughout a day, taking a break from elementary school.

Late arrivals at the office due to a long distance to the sick child care facility and early leave from work to shorten the duration of service use made single mothers' situations difficult in their workplaces. Furthermore, the difficulty in using sick child care services due to an insufficient quota and number of facilities led to the necessity of taking a break from work.

{Daily service fees}

"It costs nearly 4,000 yen to use the service for 1 child throughout a day. Daily and half-day service fees of 4,000 and 2,000 yen, respectively, are too high."

{Not using sick child care services}:

"If subsidies are allocated, I will use these services, rather than

taking my child to the nursery school, whenever his condition is poor. But now, I have no way but to take my child to the nursery school as long as his condition allows, because there are no subsidies covering sick child care services."

{Leaving the child alone at home}:

<In the case of my elementary school children, I leave them alone at home, and go to work even if they have a fever.>

{Care by siblings}

"We were so pressed for money that we could not afford to pay even 2,500 yen. So, with a sense of guilt, I made my older daughter take a break from her elementary school, and care for her sick brother for a day."

5) Desires related to sick child care services (Table 5)

The single mothers expected that their problems related to sick child care service use would be resolved. Their desires related to sick child care services were represented by [extended service hours], [improved availability], [pick-up services], and [reduction of service fees]. To avoid

Category	Sub-category	Label
Extended service hours	Accordance with nursery schools	I need sick child care services to be provided during the same hours as those of nursery schools (7:00-19:00)
	Avoiding late arrivals	I demand that the facility open earlier, or accept appointments by telephone.
	Avoiding early leaves	I want them to take care of my child for a little bit longer (until 18:30)
Improved availability	Increasing the number of facilities	I desire to have a sick child care facility close.
	Increasing the quota	I hope that they will increase their quota.
Pick-up services	Facilitating medical consultation	I want them to pick my child up at the nursery school, and take him to our family doctor.
	Sick child care facility staff	I want sick child care facility staff to pick my child up at the nursery school.
Reduction of service fees	The child's health	If subsidies are allocated, I will use these services whenever my child's condition is poor.
		In accordance with my income, nursery school fees are reduced, and medical services are free. The allocation of subsidies to cover sick child care services will also be helpful.

**Table 5:** Desires related to sick child care services.

late arrivals and leaving early, they needed sick child care services to be provided during the same hours as those of nursery schools. To avoid discontinuing work, they also desired facility staff to pick their children up at nursery schools. For the single mothers, the reduction of service fees was key to maintain their children's health and safety.

[Reduction of service fees]

"Some companies allocate subsidies for sick/convalescent child care service use. It will be helpful if these services become insurance-covered or supported by the government, just like the parental leave system. With subsidies, I will be able to use sick child care services more easily when my child becomes sick, rather than forcing him to go to nursery school with the sickness."

## Discussion

Sick child care services are mainly used by single mothers and double-income nuclear families. This section discusses the challenges of sick child care services to support the former in comparison with the latter.

### 1. Parenting and work statuses: the differences between single mothers and double-income nuclear families

The single mothers worked hard (full-time, weekends, night shifts) under poor conditions to earn low wages paid by day/hour. To maintain their households, they were forced to continue working even when their children became sick. The monthly net incomes of more than half of single mothers using sick child care services are lower than 200,000 yen [11]. As the necessity of working while parenting limits their work options to non-regular and/or low-wage jobs, single mothers' annual mean income does not exceed 1,810,000. Similarly, their mean household income is 2,230,000 yen or even lower if the last-born child is younger [16]. Among all single-mother households, nearly half are within the scope of public support [19,20], and the rate of poverty is 58% [2].

In contrast, double-income households earn 610,000 yen monthly [21]. Among double-income nuclear families using sick child care services, the mother is a regular employee in 60%, and the net monthly household income is 400,000 yen or higher in more than 50% [11]. A large number of mothers belonging to such households desire to work while parenting, and begin to seek jobs during a period when extensive public support services for parents having infants are available.

In the present study, some of the single mothers restricted their children's activities to avoid possible diseases. They also needed to take their sick children to their workplaces. In the case of double-income nuclear families, the father takes a break from work to care for the sick child in 30%. Such households also actively use baby-sitting

services [11]. The absence of a husband to share income maintenance and parenting forces single mothers to bear the heavy burden of simultaneously working and parenting. This may also negatively affect their children's health and safety.

### 2. Usefulness of sick child care services: the differences between single mothers and double-income nuclear families

The single mothers regarded high-quality medical, nursing, and child care services provided in sick child care facilities as useful to appropriately care for their sick children. They also favorably evaluated detailed recording and reporting, parental guidance, and considerations for single mothers given by facility staff as part of parental support.

Similarly to single mothers, mothers belonging to double-income nuclear families also regard high-quality services, detailed recording and reporting, and parental guidance provided in sick child care facilities as useful [12]. Such usefulness represents the basic idea of sick child care services [5] and their functions recognized by facility staff [22-25].

Trusting facility staff, which gave considerations for such mothers, and played a part in parenting as their partners, the single mothers relied on sick child care services. The tendency to regard work and parenting support provided in sick child care services as useful is more marked among single mothers compared with mothers belonging to double-income nuclear families, as the benefit of learning methods to appropriately care for sick children in such services is more greatly appreciated by the former [11]. For single mothers with limited sources of support, sick child care services are indispensable social resources, and such resources are produced and function through appropriate management by facility staff.

### 3. Challenges related to sick child care services: the differences between single mothers and double-income nuclear families

The single mothers' problems related to sick child care service use included: high service fees, insufficient quotas and availability, late arrivals and leaving early and limited choices when it was not possible to use these services. Both single mothers and mothers belonging to double-income nuclear families face difficulty in using sick child care services due to high service fees, late arrivals and leaving early, and insufficient quotas and availability [9,11,12,26].

In the present study, the level of such difficulty faced by the former was markedly high due to their low incomes, unstable work conditions, and limited sources of personal support. It was difficult for single mothers to bear the daily service fee (2,000 yen) and the cost of lunch (500 yen). Those who could not afford to pay sick child care service fees, and were unwilling to take a break from work in fear of losing their jobs [11] tended to take their sick children to nursery schools, leave them alone at home, or ask an older daughter to care for her sick brother,

taking a break from her elementary school. In contrast, mothers belonging to double-income nuclear families recognize daily service fees as reasonable [12]. For double-income nuclear families, who can access more abundant resources (regular employment, double-income), it is relatively easier to take a break from work or hire babysitters [11].

The difficulty in using sick child care services may negatively affect not only sick children's health and safety, but also their older siblings' development, and the level of such a risk is higher among those of single mothers with limited sources of personal support. To address this, the government established a system to support low-income households (those requiring public support or excluded from municipal inhabitant taxation) to use sick child care services with national subsidies [27,28]. The rate of using this system is higher among single mothers (higher than 40%) compared with double-income nuclear families (6%), confirming its effectiveness to resolve the former's problems related to such service use [11].

At this point, it should be noted that sick child care services are mainly organized by municipalities, and their systems vary. In a city, for example, there is no system to reduce service fees for low-income households, while Osaka City halves the fees for single mothers belonging to households included or excluded from income taxation [29]. For single mothers with limited sources of personal support, sick child care services are important social resources for parenting, developmental support, and health assurance. Therefore, they should be provided from the perspective of child development and family health promotion, rather than as part of social safety net programs.

This study had some limitations. First, a small sample size and limited previous studies conducted on this topic made it difficult to analyze issues such as the effects of number of children on single mothers' health literacy or care ability. Second, the present study examined sick child care service use by single mothers in a prefecture without systems to reduce service fees for low-income households. In order to address the challenges while enhancing the usefulness of sick child care services to support such mothers, it may be necessary to qualitatively and quantitatively examine these services based on users' characteristics, and evaluate their usefulness, including measures adopted to promote their use, such as reducing service fees.

## Conclusion

A large number of the single mothers were low-income, non-regular employees working full-time. To maintain their incomes and jobs, they needed to continue working even when their children became sick. A daily service fee of 2,000 yen was too high for them, and forced them to adopt measures that negatively affected their children's health and safety, such as taking them to nursery schools despite the presence of sickness or leaving them alone at home. They trusted sick child care facility staff giving considerations for single mothers, and relied on the services they provided. For single mothers with limited sources of personal support, sick child care services were important social resources for children's development and health, parenting, and the continuation of work. The results suggest the necessity of measures to accommodate service users' needs, such as reducing service fees for low-income households.

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## References

1. Ministry of Health, Labour and Welfare. 2013. The issue of support policy and present condition of single-parent families, Material 5.
2. Zhou Y, Colin M, Xinxin M, Oishi A, Abe A, et al. 2012. Employment and economic independence of single mothers. JILPT Research Report. 140: 1-206.
3. Director-General of the Equal Employment, Children and Families Bureau, Ministry of Health, Labour and Welfare. 2015. Provision of sick child care.
4. Child Raising Center, Cabinet Office, Government of Japan. 2017. The basic data related with children child care support new system.
5. Japan Sick Childcare Association. 2016. Concept of sick child care.
6. Tanihara M, Abe H, Mori T, Okada K. 2010. Parents' response to their sick child and the current status of sick-child-care support needs. *Kawasaki Med Welf J.* 19: 2, 411-418.
7. Fukada M, Minamimae K, Kasagi T. 2001. Analysis of a method of sick child care and nursing role. *J Yonago Med Ass.* 52: 183-195.
8. Fukumoto K, Kawamura M, Yoshitsugu M, Sobue I. 2016. Benefit of using sick child care facilities to the children and their parents. *Health.* 8: 1128-1141.
9. Sakai R, Wada H, Yoshitsugu M, Sobue I. 2016. Benefits of and issues regarding sick child care for children and their parents. *J Comp Nurs Res Care.* 1: 101, 1-10.
10. Yamashita H, Sobue I. 2017. Issues regarding sick child care based on service users' characteristics and support system assessment-interviews with nurses and nursery. *Int J Nurs Clin Pract.* 4: 236, 1-8.
11. Fukumoto K, Sobue I. 2016. Sick child care-related needs according to the type of household -Single-mother households and double-income nuclear families. *Int J Nurs Clin Pract* 3: 181, 1-7.
12. Edagawa C, Sobue I. The benefits and issues regarding sick child care services in double-income nuclear families with children. *J Compr Nurs Res Care.* (in press)
13. Inami M. 2014. What is sick childcare service? Present and challenges of sick childcare service. *Jpn J Pediatr.* 67: 1941-1948.
14. Kojima Y. 2006. A study of day-care service for sick children at nursery center in Shizuoka prefecture. *Ann Rep Univ Shizuoka, Shizuoka Coll.* 20: 15-24.
15. Sato M. 2006. Research into the needs of day nursery users for children with sickness. *J Jpn Red Cross Toyota Coll Nurs.* 2: 29-34.
16. Ministry of Health, Labour and Welfare. 2012. The 2011 Report of Nationwide Survey on Fatherless Families.
17. Labor Standards Act. 2015.
18. Ministry of Education. 2013. Infectious diseases that should be prevented at schools.
19. Fujii H, Zhou Y, Nakazono K, Watanabe Y, Takada S, et al. 2008. Study on employment support for single-female parent. JILPT Research Report. 101: 1-347.
20. Ministry of Health, Labour and Welfare. 2007. The 2006 Report of Nationwide Survey on Fatherless Families.
21. Fukoku Life. 2010. Trend of the double-income family. *Fukoku Economy Information.* 203: 1-4.
22. Kanda T, Miyazu S. 2010. Research on childcare nursing at the child care room for sick children: Based on the viewpoint of child care support. *Bull Fac Educ Hirosaki Univ* 103:105-109.

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23. Tanaka Y. 2011. The perception of services in nurses as to the day care for sick children. *J Child Health*. 70: 365-370.
  24. Fujiwara Y. 2007. The role of an institution for day care for sick children: focusing on evaluation of the staff. *Jpn Soc Res Early Child Care Educ*. 45: 2, 183-190.
  25. Kanaizumi S, Nakashita T, Yajima M, Ohno A. 2003. Characteristics of nursing and nursing intervention skills required in a nursery room for children recovering from common illnesses. *Bull Gumma Paz Gakuen Coll*. 5: 87-97.
  26. Takahashi M. 2011. Need and problems of the sick child care. *Bull Fac Soc Welf Hanazono Univ*. 19: 59-76.
  27. Japan Sick Childcare Association. 2009. Current status of and issues regarding sick child care.
  28. Cabinet Office, Government of Japan. 2015. Child Raising Center, Cabinet Office, Government of Japan. No. 277. The 2015 of issue a grant for support for children and childrearing.
  29. Osaka City. 2016. Improvement of day care for sick or convalescent children.