



Breaking Bad News of Cancer to Children and Their Parents in Japan: A Scoping Review

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Abstract

Background: Notification of a cancer diagnosis is often considered as bad news, which is any information that dramatically changes one's view of the future. Currently, protocols for delivering bad news to children are unavailable. Therefore, we conducted a scoping review on the intentions of Japanese children with cancer and their parents toward cancer notification in order to develop a protocol for disclosing bad news to children.

Methods: We searched relevant articles from Ichushi Web, CiNii, and PubMed in April 2023. To clarify the Japanese context, we only included articles conducted in Japanese hospitals, describing intention of children with cancer or their parents regarding cancer notification.

Results: This review included 23 out of 2049 retrieved articles. Many children wanted to be informed of their cancer diagnosis, saying, "I want to know about myself to fight the disease." Conversely, parents were hesitant to inform their children of the diagnosis because they prioritized their children's peace of mind. Children and parents wanted emotional support after the diagnosis.

Conclusions: The study results suggest the need for nurses to coordinate of the discrepancy between the child and parents' intentions toward delivering bad news before the bad news is delivered to the child. The study's results also suggest a need for nurses to communicate with parents in advance about the explicit nature of emotional support for the child and parents after the diagnosis. Protocols for breaking bad news for children with cancer in Japan should add "confirmation of the timing and content of the child's own need to know," "selection of the notifier by the child," "family presence at the time of notification," and "explanation to parents, prior to notification to their children, of the emotional support they will receive after notification" in SPIKES, the conventional notification protocol for adults.

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Introduction

Approximately 400,000 children are diagnosed with childhood cancer annually worldwide at an average age of 8 years [1], but considering the advances in medical care, the survival rates are now roughly 80% [1,2]. Children with childhood cancer face future problems associated with life events such as late effects, schooling, marriage, and pregnancy. Therefore, children with cancer must be able to understand and face the disease themselves and continue to manage their health [3,4]. Informing children of their cancer diagnosis is reportedly effective in eliciting their ability to manage their health; children who are informed of their cancer are more motivated to fight the disease, more cooperative in treatment and self-care, and more able to make their own decisions about disease progress [5-7]. In other words, informing these children of their cancer diagnosis leads to effective follow-up. Therefore, notifying children about their cancer status is important in the treatment of childhood cancer. However, despite recommendations that children should always be informed [8,9], many healthcare providers do not know the appropriate time to inform children or what to tell them [10,11].

The announcement of a cancer diagnosis is synonymous with a death sentence, thereby often considered as bad news [12,13]. Bad news refers to any information that dramatically changes one's view of the future [14]. Reactions of disbelief and denial of a cancer diagnosis, coupled with a sense of impending fear, can cause treatment delays [13,15]. Therefore, all healthcare providers must be aware of appropriate methods for communicating cancer diagnosis to children and families.

SPIKES is a protocol that focuses on communication skills for breaking bad news to patients with cancer [16]. It has six steps: Setting

up, Perception, Invitation, Knowledge, Emotions with Empathy, and Strategy or Summary [16]. While using this approach, healthcare providers support patients and their families in reaching from bad news, such as a cancer diagnosis, to a realistic and hopeful future plan, the so-called treatment planning [16]. However, current protocols for breaking bad news do not specify the target age group. To our knowledge, no protocols for breaking bad news are available for children. Such a protocol specific for children is needed to provide a child-friendly way of disclosing cancer diagnosis.

Parents also find divulging cancer diagnosis to their children by themselves a great psychological burden. Having a doctor explain to them that their child has cancer is distressing not only immediately after the diagnosis but also long after it [17,18]. Therefore, a protocol for breaking bad news is necessary, especially for children with cancer as well as their parents.

Different societies and cultures tend to have different intentions toward breaking bad news to children with childhood cancer [9]. In Western countries, cancer diagnosis notification to children with such

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a condition has changed significantly from “never tell” to “must tell” since the late 1980s [8]. In Africa, owing to the prioritization of the community over the individual as advocated by African culture and the lack of children’s rights built into current ethical codes, interviews with mothers or fathers of children with childhood cancer revealed that 56% of the participants (n = 35) said that the child should not be informed of the diagnosis [19]. Therefore, protocols for breaking bad news to children with cancer should be based on society and culture. Reviews of the intentions of Japanese children with cancer themselves and their parents [20,21] remain limited to domestic trends. To our knowledge, no reviews have focused on Japanese society and culture and compared them with foreign articles on how Japanese children with cancer themselves and their parents want to be informed of bad news such as cancer diagnosis.

Hence, this study aimed to explore the intentions of Japanese children with cancer and their parents toward the disclosure of cancer diagnosis in order to gain insights necessary for creating a protocol for breaking bad news of cancer diagnosis to children in Japan. The research question was, “What are the intentions of Japanese children with cancer and their parents toward cancer diagnosis notification?” This review will promote the development of a protocol for breaking bad news (cancer diagnosis) at the time of diagnosis notification for Japanese children with cancer and their parents. It also has implications for cultural anthropological nursing regarding breaking bad news for children with cancer.

Material & Methods

Statement on review

We conducted an exploratory scoping review to determine the intention of Japanese children with cancer and their parents toward receiving bad news about cancer [22,23]. This review conformed to Arksey and O’Malley’s framework (i.e., (1) identifying the research question; (2) identifying relevant studies; (3) selecting studies; (4) data charting; and (5) collating, summarizing, and reporting the results [22] and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) guidelines [24].

Identification of relevant studies and study selection

We searched relevant articles from Ichushi Web, CiNii, and PubMed in April 2023 by using several data-specific keywords, such as (“informed assent” OR “informed consent”) AND “cancer” AND “child” for Ichushi Web and CiNii; and (“bad news” OR “informed assent” OR “informed consent” OR “truth telling”) AND “cancer” AND “child” for PubMed. The period of time on the search had no limits.

To clarify the situation in Japan, we targeted studies conducted in Japanese hospitals. The inclusion criteria were studies that (1) included children with cancer or their parents in Japanese hospitals and (2) were written in Japanese or English. Furthermore, studies that inferred nondisclosure of the cancer diagnosis to the child but described parental intention to inform the child were included. Conversely, studies dealing with physicians’ or nurses’ feelings and thoughts about the disclosure of bad news to children with cancer were excluded.

The first author (R.I.) identified duplicate papers. In the primary screening, two authors (R.I. and Y.S.) independently selected titles and abstracts. In the secondary screening, the same authors independently selected full articles. If disagreement occurred between the two authors, the last author (I.S.) made the decision.

Charting the data

Two authors (R.I. and Y.S.) independently extracted data from the research papers. Likewise, the last author (I.S.) made the decision if disagreement occurred between the two authors. The following data were extracted: study participants; sample size; study design; children’s age at diagnosis of cancer, at the time of receiving bad news, and during the study; children’s diagnosis, and statements representing children’s and their parents’ intentions for receiving bad news of cancer. In accordance with the methodology of the scoping review [22–24] and our objectives, the methodological quality and risk of bias in the included articles were not assessed.

Collating, Summarizing, and reporting the results

To clarify the intention for receiving bad news among Japanese children with cancer and their parents, we conducted a qualitative content analysis. The statements representing children’s and their parents’ intentions for receiving bad news of cancer were extracted independently and then separately analyzed for categorization by two authors (R.I. and Y.S.).

Results

Study characteristics

Out of 2,049 papers identified from the databases, 23 met the study objective, thereby included in the analysis [3,5–7, 25–43] (Figure 1).

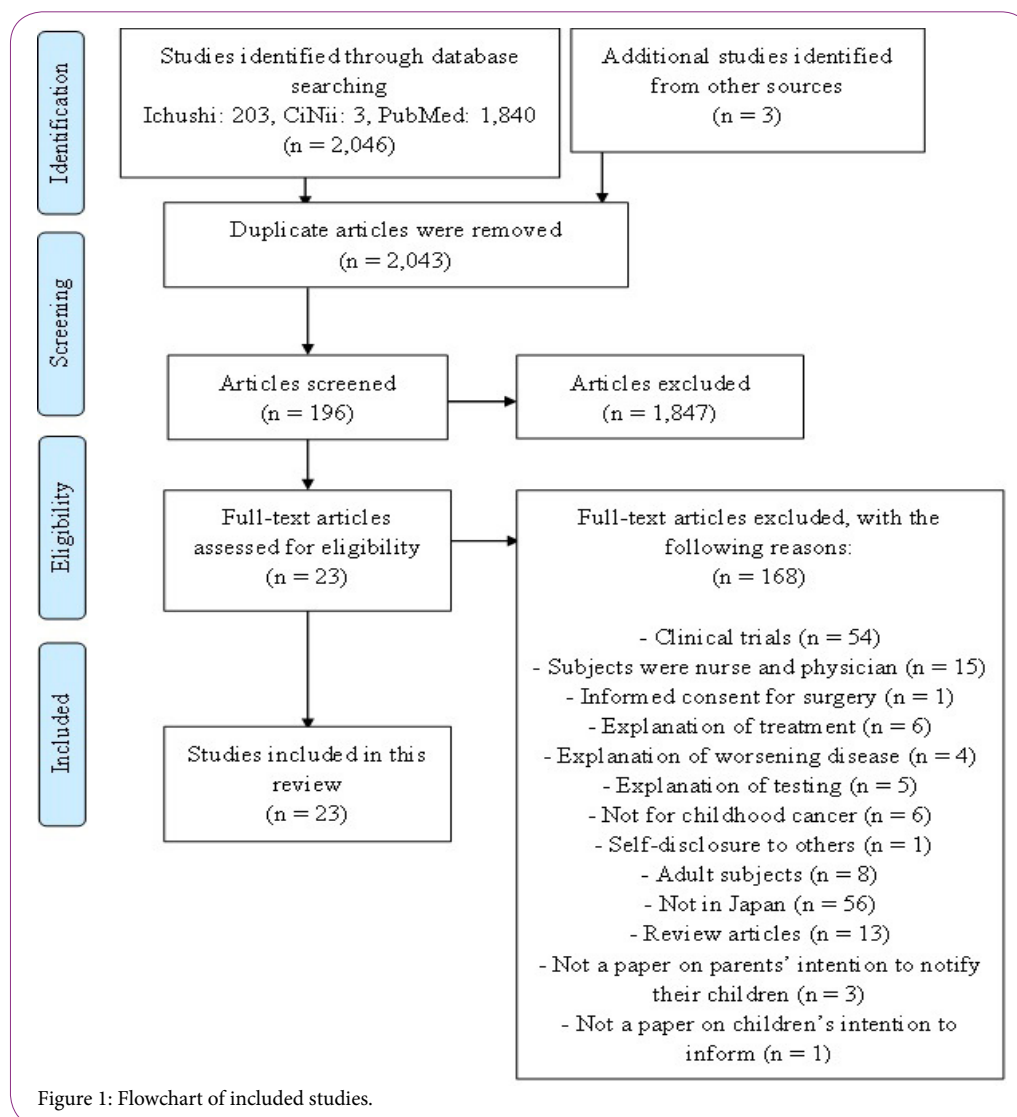
Table 1 summarizes the reviewed studies, which included 17 qualitative studies and 6 quantitative studies. Of the 23 research articles, 6 included children, 5 included both children and their parents, and 12 included their parents. Overall, 11 studies analyzed children, who were 2–29 years old at diagnosis of cancer, but 2 studies failed to mention children’s age at disease onset. Regarding parents, 12 studies were found, with age spanning from infancy to early adulthood, but 5 studies did not indicate their children’s age at disease onset.

Children’s intentions toward receiving bad news of cancer diagnosis

The children’s intentions toward receiving bad news of cancer diagnosis are summarized into 4 categories and 13 subcategories (Table 2).

Desiring to know about their own condition; being aware helps them cope with the disease

Many children strongly desired to be informed of their disease, saying, “Desiring to know because this is about myself.” [6,7,25,27] Approximately 73% of 70 childhood cancer survivors aged 10 years and older said that they “*should be taught*” about cancer notification [7]. Additionally, five children with childhood cancer aged 10–15 years said that they “*hate not knowing the name of my disease*” and “*resent [not being told]*” [27]. The children spoke of anguish at not being told and the pain of not being able to ask questions [6].



Children who did not know about their disease also felt "Being anxious/scared about chemotherapy side effects" [6,30] and "Having disease concerns and questions such as symptoms and treatments." [6,27,28,30] Children who had no side effects of chemotherapy explained to them that they were more likely to be upset, cry out loud, and complain of pain if ever the side effects appeared [30]. In addition, a 15-year-old child with acute myelogenous leukemia said, "It is definitely better if you tell me. If you don't tell me, I have to wonder if I'm going to die, and I can't ask if I'm going to be cured." [6]. Children who did not receive adequate explanations expressed distress and fear of tests and procedures [6,27] and anxiety and doubts about symptoms [30].

For the children, illness disclosure was linked to "Coping with the disease in a positive way" because they could understand the need for treatment and what was happening to them [6,7,27,28,32,33]. Some children responded that knowing "makes me more prepared" [28].

Hoping the physician will consider the children's desire of knowing when and what to tell about the disease

Children wanted to be aware "When to know about the disease"

[25,27] and when they are going to feel well, "Hoping the physician will explain the disease repeatedly in an easy-to-understand way." [27,29] Children wanted to know at the beginning of hospitalization and before the start of treatment at an early stage, when they were feeling well and in a good mood [27].

The child asked, "Why don't you ask us if we want to hear it or not? It is my own thing," and "Wouldn't it be better to ask us if it is okay to tell us and then do it?" [27], and "Hoping the doctor will confirm in advance my own thoughts about the disease" [25,27,29].

Placing importance on the surrounding environment when receiving about the disease

When explained about their illnesses, children wanted the following: "Hoping to have someone I feel comfortable with to explain the disease," [27] "Desiring to hear about the disease with my family," [27,29] and "Desiring to hear about the disease in a place where I can focus on it" [27,29]. Some children said that "hearing it from a family member makes me feel safer" and "I am nervous to talk to a doctor," while others said that "a doctor is more trustworthy." [27].

Table 1: Summary of included studies

Author, Year	Study Subjects	Number	Study Design	Information on Children with Cancer			
				Age at diagnosis of cancer	Age at the time of receiving the bad news	Age at the time of the study	Diagnosis
Furuya, 1999 [25]	Children	7	Interview	2–14 years	16–26 years	16–27 years	ALL, AML, NHL
Furuya et al., 1995 [26]	Children	6	Interview	3–12 years	10–18 years	13–22 years	Leukemia
Higashiyama, 1997 [7]	Children	70	Questionnaire	Unknown	Unknown	8–33 years	ALL (47.1%), Malignant lymphoma (12.9%), Neuroblastoma (12.9%) et al.
Ito et al., 2010 [27]	Children	5	Interview	10–14 years	Unknown	10–15 years	ALL, AML, Rhabdomyosarcoma
Kubota, 2002 [28]	Child	1	Interview	12 years	12 years	12 years	ALL
Yoshida, 2023 [29]	Children	15	Interview	15–29 years	15–29 years	20–35 years	Site of cancer: bone soft, hematologic, uterus, ovary, testis, lung, gastric, liver cell
Saiki-Craighill et al., 2004 [6]	Children, Parents	Children: 13, Parents: 16	Interview	4–15 years	5–15 years	11–18 years	ALL, AML, CML, Malignant lymphoma, Acute monocytic leukemia
Misawa et al., 2010 [30]	Children, Parents	Children: 1, Parents: 1	Medical record	9 years	Not telling bad news	10 years	Ewing sarcoma family tumors
Saiki-Craighill et al., 2006 [31]	Children, Parents	Children: 13, Parents: 16	Interview	10–15 years	10–15 years, 2 did not give bad news	11–18 years	ALL, AML, CML, Malignant lymphoma, Acute monocytic leukemia
Yamada et al., 1996 [32]	Children, Parents	19	Medical record, Interview	9–18 years	Unknown	≥10 years	Thymic carcinoma, olfactory neuroblastoma, pituitary tumor, acute lymphocytic leukemia, malignant lymphoma, acute myelogenous leukemia, osteosarcoma, Ewing sarcoma, synovial sarcoma, acute myelomonocytic leukemia, rhabdomyosarcoma
Saiki-Craighill 2003 [33]	Children, Parents	Children: 20, Parents: 20	Interview	Unknown	Unknown	Unknown	Unknown
Yamashita, et al., 2006 [34]	Parents	17	Questionnaire	Probably 0 year to pre-schooler	Unknown	9–20 years	ALL, malignant lymphoma, AML, MDS, neuroblastoma
Inada et al., 1994 [35]	Parents	53	Questionnaire	0–17 years	Probably 2–19 years, 39 did not give bad news	1–31 years	ALL, AML, myelodysplastic syndrome, malignant lymphoma, solid tumors, brain tumors
Fukuroda and Hotta, 2019 [36]	Parents	8	Interview	1–8 years	Unknown	4–9 years	Unknown
Shimoyama et al., 2014 [37]	Parents	1	Interview	2 years	Late 20s	30s	Wilms' tumor
Shimoyama, 2018 [38]	Parents	2	Interview	Infancy	Preschooler, 14 years	15–19 years	Neuroblastoma, Wilms' tumor
Hayakawa, 1997 [5]	Parents	18	Interview	2–14 years	Unknown	7–19 years	ALL, AML, NHL
Tamura et al., 2005 [39]	Parents	1	Interview	10 years	11 years	11 years	AML
Mori et al., 1996 [40]	Parents	285	Questionnaire	School age to adolescence	Unknown, 28 did not give bad news	Unknown	ALL, brain tumor, Wilms' tumor, rhabdomyosarcoma, retinoblastoma, hepatoblastoma, osteosarcoma, other
Tomizawa, 2003 [41]	Parents	7	Interview, Graphs of Parents' own mood change toward their child's illness from onset to discharge	Unknown	Unknown	3–12 years	ALL
Yoshino et al., 1992 [42]	Parents	10	Interview	Unknown	Unknown	4–12 years	Acute leukemia, rhabdomyosarcoma, malignant lymphoma
Okada et al., 1993 [43]	Parents	48	Questionnaire	Unknown	Unknown, 34 did not give bad news	Probably toddler to school age	Leukemia, other childhood cancers
Yamashita, et al., 2005 [3]	Parents	15	Interview	Unknown	Unknown	8–20 years	Leukemia, malignant solid tumors

ALL, acute lymphoblastic leukemia; AML, acute myeloid leukemia; CML, chronic myelogenous leukemia; NHL; non-Hodgkin lymphoma; MDS; myelodysplastic syndromes.

Table 2: Children's Intention about Receiving Bad News of Cancer.

Category	Subcategory
Desiring to know about their own condition; being aware also helps them cope with the disease	Desiring to know because this is about myself [6, 7, 25, 27]
	Being anxious/scared about chemotherapy side effects [6,30]
	Having disease concerns and questions such as symptoms and treatments [6,27,28,30]
	Coping with the disease in a positive way [6,7,27,28,32,33]
Hoping the physician will consider the children's desire of knowing when and what to tell about the disease	When to know about the disease [25,27]
	Hoping the physician will explain the disease repeatedly in an easy-to-understand way [27,29]
	Hoping the physician will confirm in advance my own thoughts about the disease [25,27,29]
Placing importance on the surrounding environment when receiving about the disease	Hoping to have someone I feel comfortable with to explain the disease [27]
	Desiring to hear about the disease together with my family [27,29]
	Desiring to hear about the disease in a place where I can focus on it [27,29]
	Having mental support after receiving the bad news [27,29,32]
Not wanting the parents to worry	Not intending to share my questions about the disease with my parents [6,26,38]
	Finding about the disease on my own [6,25,26,28]

Children sought “Mental support after receiving bad news,” and they stated that family members and medical personnel are the ones who can support them in their upset state of mind immediately after being informed of their illness [27,29,32].

Not wanting the parents to worry

Children tended to be “Not intending to share my questions about the disease with the parents” because they did not want their parents to worry about them. A child with leukemia who accidentally learned the name of his diagnosis asked questions to his doctor, but did not tell his parents [26]. Even though the children were dimly aware that their parents were desperately trying to conceal the disease name, they pretended not to know or care because they did not want to upset their parents by telling them [38]. These children also wanted to “Find out about the disease on my own” on the Internet, in the media, or in books to avoid being noticed by their parents [6,25,26,28].

Parents’ intentions toward breaking the bad news of cancer to their children

The parents’ feelings and thoughts about breaking the bad news of cancer diagnosis to their children are summarized into 5 categories and 16 subcategories (Table 3).

Confusion and mental conflicts

When told that their child had childhood cancer, many parents felt remorse for their child and a sense of loneliness and helplessness [35,36,37,39,41], and were “Being too confused to consider explanation of the disease.” Even parents who had time to think about explaining the disease to their children were conflicted about informing their children because of “Feeling insecure about whether the child will be able to accept the disease” [5,31,35,36] and “Worrying about possible negative effects of not explaining the disease” [5,32,36,43]. Additionally, “Being distressed by opinion discrepancy among family members” affected parental confusion [30,36].

Desiring to prioritize the child’s peace of mind

When parents perceived that their children did not reject or question hospitalization and were living peacefully, parents judged “Deeming explanations unnecessary, as the child does not care about his/her disease,” [3,36] and “Intending to explain only when the child asks about the disease” [3,5,39]. “Desiring not to cause confusion or anxiety in the child by explaining the disease in detail” was also expressed by many parents [36,40].

Hoping their children will accept and face the disease

Parents prioritized their children’s peace of mind while “Hoping the child will cope with the disease on his/her own initiative” [32,36]. They were also “Anticipating that explanations will eventually become necessary to cope with the disease in the long term,” [36] and “Expecting that the child will positively consider explanations when he/she becomes independent.” Parents who explained the disease to their children viewed the cancer diagnosis notification to their children positively, saying that “*not hiding the disease made the children aware that they were sick, leading them to take care of their own bodies*” [38].

Seeking confidants as a source of mental support

Many parents are “Desiring to establish a trust relationship with the doctor as a basis for appropriate explanations” [31,36]. Parents who learned that doctors were eager to explain the disease to dispel their children’s anxiety and help their children engage in positive treatment led them to disclose the diagnosis to their children [31].

“Support for the child after receiving bad news of their disease” [31,33,34,39,42] and “social support” [3,34] were also important to the parents. Parents who had prospects for post announcement support from their nurses and who were briefed on the support they would receive were more likely to reveal the diagnosis to their children [31].

Desiring to explain to their children according to their level of maturity

Parents were “Desiring to explain appropriately in consideration of the child’s cognitive ability and future,” [36] “Desiring to explain as specifically as possible,” [32,36] and “Desiring to explain using expressions that do not frighten the child.” [36]

Discussion

To our knowledge, this study is the first to conduct a scoping review to explore children’s and parents’ intentions toward cancer diagnosis notification among Japanese children with cancer from a cultural anthropological perspective. This review will promote the development of a protocol for breaking bad news, such as cancer diagnosis, to children with cancer in Japan. Results showed a discrepancy between the child’s and parents’ intentions toward disclosing cancer diagnosis to the child. Based on the results of this study, we discuss the discrepancy between the child’s and parents’ intentions and the corresponding reasons, as well as the nursing practice of breaking the bad news of cancer diagnosis to children. In addition, we will examine the protocols for breaking the bad news of cancer diagnosis to children with cancer in Japan.

Act as a coordinator for the discrepancy between the child and the parents’ intentions

Many Japanese children with cancer strongly desired to be notified of their cancer diagnosis, consistent with those in other countries[8,11].

Children with cancer are better prepared for treatment when they know their diagnosis [28]. Therefore, disclosing the diagnosis to children with cancer frees them from having anxiety about the tests, treatment, and symptoms and motivates them to fight the disease.

Japanese parents had their own “confusion and mental conflicts” when they were told that their child had cancer [35-37,39,41]. Such parental confusion and conflict are similar to those in other countries (shock and upset among Iranian mothers [44] and insomnia among Chinese parents immediately after diagnosis [45]), and prevent them from informing their children of their cancer.

Parents are also hesitant to disclose the bad news to their children, similar to other countries, because of “Desiring to prioritize the child’s peace of mind.” In an interview survey in Africa, 56% (n = 35) of parents of children with cancer believe that they should not inform their children of their diagnosis [19]. In India, 68% (n = 41) of parents of children with childhood cancer also prefer not to inform their children [46]. These findings indicate a discrepancy between children’s and parents’ intentions regarding breaking bad news to their children.

In addition, Japanese children with cancer tended to hide their own anxieties and doubts from their parents because they did not want to “worry their parents” [6,26,38]. To our knowledge, this tendency has not been reported in other countries, and may be a characteristic of Japanese children with cancer. One reason for not telling their children the disease name is that they cannot confirm their children’s

Category	Subcategory
Having confusion and mental conflicts	Being too confused to consider disease explanation [35,36,37,39,41]
	Feeling insecure about whether their children will be able to accept the disease [5,31,35,36]
	Worrying about the possible negative effects of not explaining the disease [5,32,36,43]
	Being distressed by opinion discrepancy among family members [30,36]
Desiring to prioritize their children’s peace of mind	Deeming explanations unnecessary because their children does not care about their disease [3,36]
	Intending to explain only when their children ask about the disease [3,5,39]
	Desiring not to cause confusion or anxiety in their children by explaining the disease in detail [36,40]
Hoping their children will accept and face the disease	Hoping their children will be able to cope with the disease on their own initiative [32,36]
	Anticipating that explanations will eventually become necessary to cope with the disease in the long term [36]
	Expecting that their children will positively consider explanations when they become independent [38]
Seeking confidants as a source of mental support	Desiring to establish a trust relationship with the physician as a basis for appropriate explanations [31,36]
	Supporting their children after receiving the bad news of their disease [31,33,34,39,42]
	Having social support [3,34]
Desiring to explain to their children according to their level of maturity	Desiring to explain appropriately in consideration of their children’s cognitive ability and future [36]
	Desiring to explain as specifically as possible [32,36]
	Desiring to explain using expressions that do not frighten their children [36]

Table 3: Parents’ Intention about Breaking the Bad News of Cancer to Their Children.

wishes, and they limit the content of disclosure to their children by determining the acceptable range of what they can tell their children [3]. The child's and parent's responses suggest the possibility of a greater discrepancy between them.

Therefore, nurses need to be the coordinator of the discrepancy between the child's and the parents' views on the disclosure of such bad news.

Act as support after receiving bad news

In Japan, both children with cancer and their parents consider support to be very important and essential after receiving the bad news [27,29,31-34,39,42].

Children desire emotional support when they are shocked by the announcement [27,29,32]. Likewise, parents desire emotional or social support such as receiving ongoing information [31,33,34,39,42], information sharing, and consultation opportunities from families who have experienced the same thing [3,34]. Parents with a clearer outlook for this support are more likely to reach a decision to inform their children than those without [31]. Thus, support for children and parents is essential for them to feel comfortable with the diagnosis announcement. When discussing whether or not to tell the child the bad news, the nurse needs to clearly indicate to the parents the support that will be provided after the announcement.

Review of the protocol of breaking bad news for children with cancer in Japan: comparison with SPIKES

Regarding breaking bad news, the most common protocol is SPIKES. This protocol has reached a guideline status in several countries, and it is frequently used for bad news communication skills training [47]. However, the insight into whether the basic steps of the SPIKES protocol (Setting up, Perception, Invitation, Knowledge, Emotions with Empathy, and Strategy or Summary) meet the intentions of children with cancer toward the disclosure of bad news is still unclear.

The results of this review showed that, in response to breaking bad news, Japanese children with cancer thought of "Placing importance on the surrounding environment when receiving about the disease," indicating the importance of "Setting up," the first step of SPIKES. They also stated, "Hoping to have someone I feel comfortable with to explain the disease" [27], and "Desiring to hear about the disease with my family" [27,29]. In addition to being in a quiet environment such as a private room, children want to hear the announcement from someone they trust, together with their family.

"Desiring to know about my own condition, and being aware helps me cope with the disease" was also expressed by these children. They wanted their nurses to match the timing and content of what they wanted to know. Japanese guidelines for pediatric oncology nursing care and a review of prognostic disclosure to children in Western countries indicate the importance of asking children themselves whether or not they need to be told bad news, what they want to know, and what they do not want to know ([8]; Nursing care guidelines for children with cancer and their families, 2018). Regarding the second and third steps of SPIKES (Perception and Invitation), confirming whether children with cancer want to know

the diagnosis name [25,27,29], when they want to know [27,29], and what they want to know is important [28,30]. Furthermore, Japanese children with cancer were "Hoping the doctor will explain the disease repeatedly in an easy-to-understand way" when they were feeling well [27,29]. As for the fourth step (Knowledge), repeating the message in an easy-to-understand language is necessary, according to the children's age, wishes, and physical condition.

After disclosing cancer diagnosis to their children, both the children and parents wanted psychological support [27,29,31-34,39,42]. In steps 5 and 6 of SPIKES (Emotion and Summarize), the nurse provides psychosocial support to children and parents after the diagnosis disclosure. Before breaking the bad news to children, nurses need to clearly indicate to the parents the psychosocial support to be provided for the child and the parents after the disease announcement.

Limitations

This study sought to explore the intentions of Japanese children with cancer and their parents toward receiving the bad news of cancer diagnosis. Hence, we did not exclude literature by assessing the quality of the included literature. Therefore, the strength of evidence for the results of this study should be treated with caution. However, our findings are similar to previous research findings on diagnostic notification among children with cancer and their parents in other countries, suggests convergence of findings from this review. In addition, the included articles have a wide age range (0–33 years). Thus, we could not identify the intentions of children with cancer and their parents at each developmental stage; future research based on several developmental stages is needed to provide appropriate measures when disclosing bad news.

Conclusion

The discrepancy between the Japanese children and their parents included the children's desire to "know" about their own illness and the parents' negative attitude toward breaking bad news. However, both children and parents believed that assurance of support after the diagnosis disclosure is essential.

The results of this study suggest the need for nurses to reconcile discrepancies between children and parents, to understand parents' confusion and conflict, and to provide more support after the announcement. Clearly informing parents of the contents of psychosocial support for their children and parents after the announcement, before giving bad news to their children, will encourage the parents to disclose the cancer diagnosis to their children.

"Confirmation of the timing and content of the child's own need to know," "selection of the notifier by the child," "presence of the family at the time of notification," and "explanation to parents of the content of postannouncement emotional support before and after notification of the child, before giving bad news to their children" are recommended to be included in the SPIKES designed for children with cancer in Japan. By developing a culturally based protocol for breaking bad health news to children with cancer, these children may be able to be notified early regarding the diagnosis.

Competing Interests

The authors declare that they have no competing interests.

Author's Contributions

Conceptualization, Y.S. and I.S.; methodology, Y.S.; data curation, R.I. and Y.S.; writing-original draft preparation, R.I.; writing-review and editing, Y.S., I.S.; supervision, I.S.; All authors have read and agreed to the published version of the manuscript.

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