Narratives about chemotherapy in personal journals written by women with breast cancer

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PURPOSE : Women's morbidity of breast cancer has been increasing since 1975 in Japan. One of the breast cancer treatments is chemical care using anticancer drug. It is assumed that breast cancer patients experience physical and psychological pain cause by the side effects such as feeling of sickness, vomiting, and alopecia. The purpose of this study is to unveil the patients' feelings and thoughts about chemical cure based on their journal . It will be the first step in seeking for ways of helping breast cancers.
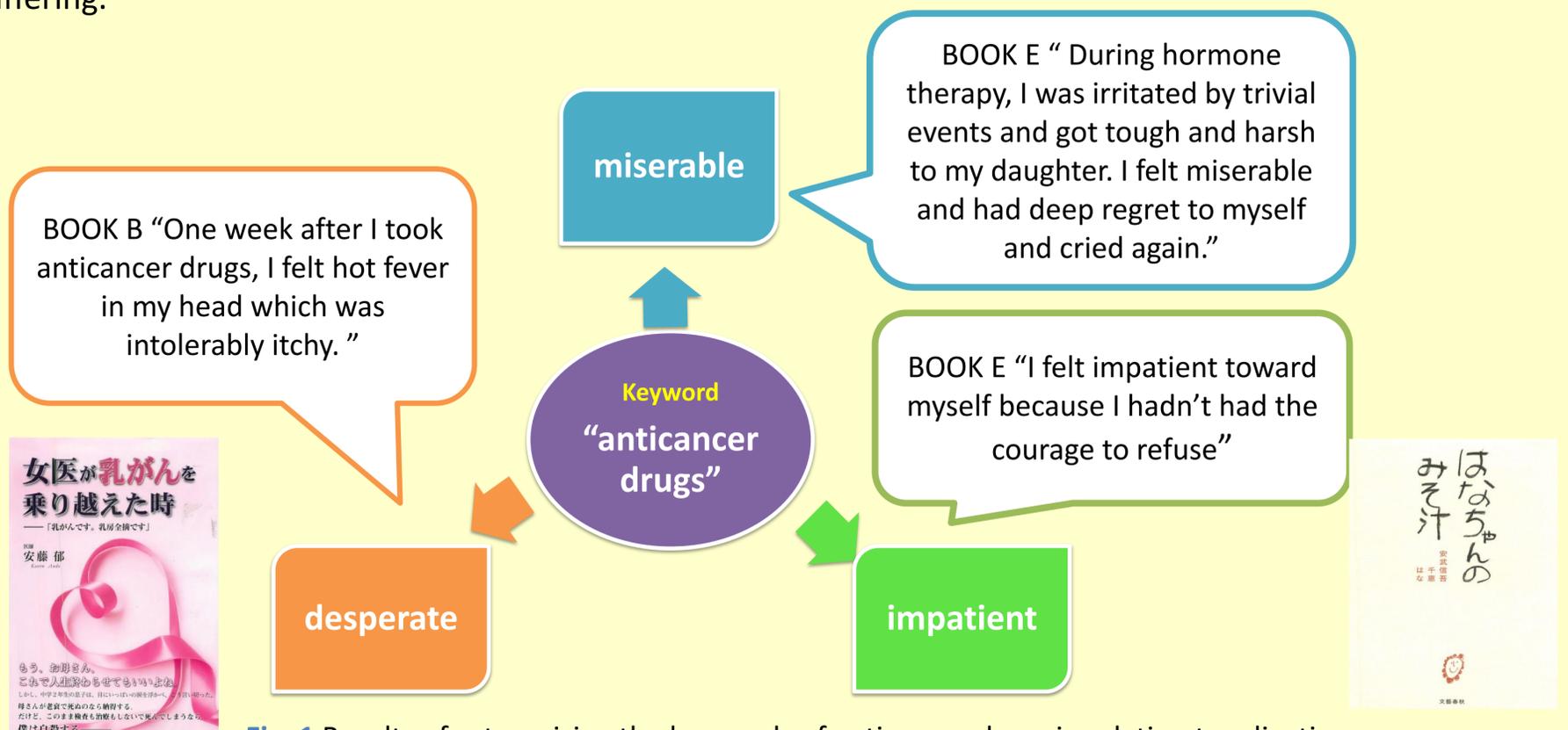
DESIGN : Qualitative and quantitative approach by text mining.

METHODS : Five journals of people with breast cancer were extracted from 12 books published during 2010-2013. Text mining analysis was conducted using the Text Mining StudioVer4.0. Narratives on the treatment of breast cancer focusing on the chemotherapy were analyzed by categorizing the keywords of anticancer drugs in relation to adjectives, and the use of reference to the contexts.

Table 1 Characteristics of the journal

Book	publication	age		job	surgery	therapy			
						chemo	Radiation	Hormone	targeted
A	2011	70	death	writer	+	+	+	-	+
B	2011	44		doctor	+	+	-	-	+
C	2011	64	death	poet	+	+	+	-	-
D	2012	47		editor	+	+	+	-	-
E	2012	33	death	teacher	+	+	-	+	-

RESULTS : Among the five journals , two were published when the authors were in their 40s, and three were published after their death. The total number of the sentences is 5,682 consisted of 38,100 words. The adjectives associated to anticancer drugs were "miserable," "impatient," and "desperate." One example of the word "miserable" was used in the context of acomia, where a patient suffered from alopecia : "During hormone therapy, I was irritated by trivial events and got tough and harsh to my daughter. I felt miserable and had deep regret to myself and cried again." The word "impatient" was used such as: "I felt impatient toward myself because I hadn't had the courage to refuse" to accept the chemotherapy. The word "desperate" was used to express physical agony such as: "One week after I took anticancer drugs, I felt hot fever in my head which was intolerably itchy." All these examples expressed feelings toward uncontrollable distress, pain, and suffering.

BOOK E " During hormone therapy, I was irritated by trivial events and got tough and harsh to my daughter. I felt miserable and had deep regret to myself and cried again."

miserable

BOOK B "One week after I took anticancer drugs, I felt hot fever in my head which was intolerably itchy. "

Keyword
"anticancer drugs"

BOOK E "I felt impatient toward myself because I hadn't had the courage to refuse"

desperate

impatient

Fig. 1 Results of categorizing the keywords of anticancer drugs in relation to adjectives

CONCLUSIONS : According to the results of text mining analysis, co-occurred words such as "miserable," "impatient," and "desperate," represented the authors' agony and frustration and hard experience caused by side-effects.