EVALUATION OF THE EDUCATIONAL USE OF CANCER NARRATIVE DATABASE FROM "DIPEX-JAPAN": AN ANALYSIS OF STUDENTS' FEEDBACK

「がん患者の語りデータベース」DIPEx-Japanの教材活用の評価 ~学生の事後の調査の分析より~

<u>いとうたけひこ</u>¹ 新幡智子² 射場典子³ 大高庸平⁴ 小平朋江⁵ 和田恵美子⁶ 中山建夫⁷

Takehiko Ito¹ Tomoko Arahata² Noriko Iba³ Yohei Otaka⁴ Tomoe Kodaira⁵ Emiko Wada⁶ Takeo Nakayama⁷

1. Wako University, 2. Palliative Care Partners, 3. DIPEx-Japan, 4. Wako University, 5. Seirei Christopher University, 6. Formerly Osaka Prefecture University, 7. Kyoto University,



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[BACKGROUND]

- DIPEx Japan
- Cancer patients' narrative contributes
 not only for patients or family members in distress but also for medical students in positive educational effects.
- Since such narratives can be information resources for narrative-based-medicine, DIPEx (Health Talk Online) was developed by Oxford University to build a website of database of patients' voice based on their personal experience.
- Accordingly, DIPEx-Japan was established recently as the Japanese database website. The video interviews were not only uploaded to the website

<u>http://www.dipex-j.org/</u>, but also limitedly distributed as a database of illness talk to the researcher in order to examine its educational impact for medical students.

[AIM]

- There were three aims of the whole research project.
- (1) To evaluate educational impacts of "The database of cancer patients' narratives (DBCPN)" toward medical students
- (2) To examine the evaluation of usefulness and usability by the teachers who used DVD of DBCPN as a teaching material in the classroom.
- (3) To develop educational materials further by using DBCPN.
- The aim of this study was concentrated to (1): to measure and evaluate educational effects for medical and paramedical students after watching DVD of DBCPN.

[METHOD] (1) PARTICIPANT STUDENTS

 The participants were 1132 students who took one of 23 classes that used the cancer narrative database as a part of their medical education. The 23 classes consist of 16 in undergraduate, 5 in graduate school, 1 in junior college, and 1 in continuing education course. A questionnaire survey was done after each class. Among all the respondents, 704 were nursing or maternity nursing students, 309 were pharmacy students, 77 were physical therapy students, and 42 were medical students. The average age was 21.83 (SD=4.85). Out of the 1132 respondents, 224(19.9%) were men, and 904(80.1%) were women.

[METHOD] (2) THE ITEMS OF THE QUESTIONNAIRE

- (1) Was the narrative database useful to understand the subjects?,
- (2) Were you able to gain **new knowledge or awareness**?,
- (3) Have you gotten deeper understanding of cancer?,
- (4) Was it useful to understand the life of patients?,
- (5) Was it useful to understand the emotion or feeling of patients?,
- (6) Was it useful for you as a future medical professional to behave with patients?,
- (7) Have you **become interested** in the database?,
- (8) Has your motivation to study increased?,
- (9) Do you want to see and hear narratives of other patients in the website?,
- (10) What was your **general impression**?

METHOD: PARTICIPANTS

Major	number (%)
Nursing	701 (64.5)
Pharmacy	267 (24.6)
Physical therapy	77 (7.1)
Medicine	14 (1.3)
Others	28 (2.6)

Grade & Major	number (%)
Freshmen (77)	Physical Therapy:77 (100.0)
Sophomore (210)	Nursing: 210 (100.0)
Junior (471)	Nursing: 457 (97.0) Medicine: 14 (3.0)
Senior (279)	Pharmacy: 263(94.3) Nursing: 16 (5.7)
Graduate (22)	Nursing: 18 (81.8) Pharmacy: 4 (18.2)

METHOD: LECTURE SUBJECT & STYLE

Subj	ect of lecture	number
	Cancer n.	8
N.I	Chronic n.	1
Nur- sing	Terminal phase n.	4
	Geriatric n.	1
communication		4
Introduction to medicine		1
Psychology		1
Physical therapy		1

Style of lecture	n
Introductory use	7
Group discussion	9
Proof example	2
Case Study	1

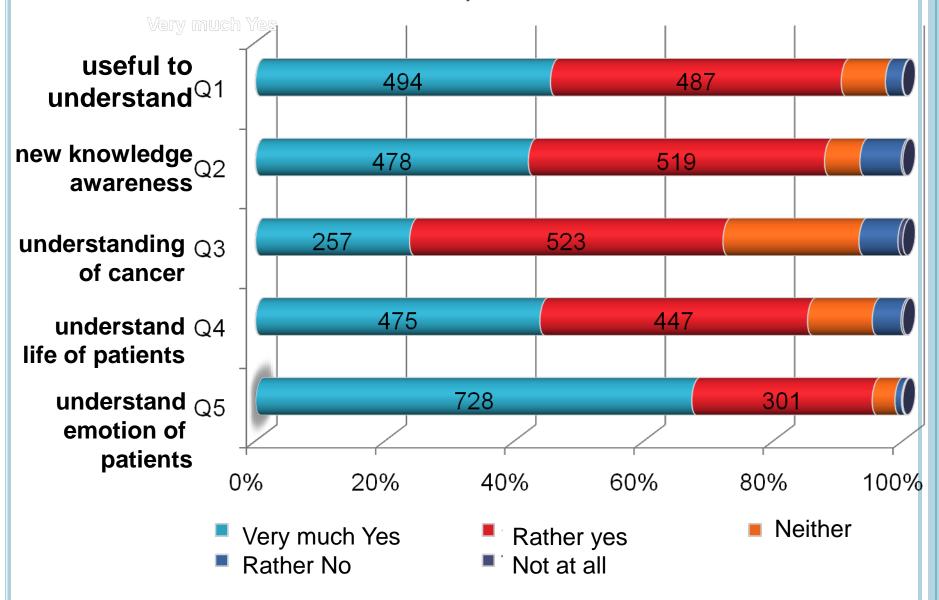
[RESULTS](1) OVERALL EFFECTS AND GENDER DIFFERENCE

- The mean of 9 items (1.0-5.0) on the evaluation of the database was 4.22 (SD = 0.54), and more than 70% responded "strong agree" or "rather agree."
- Women (M = 4.26; SD = 0.61) answered more positively than men (M = 4.03; SD = 0.61) significantly (t = 5.76, p < 0.00l).
- However, with the overall mean as the dependent valuable, and sex, age, and mode of class as independent valuables, we conducted a multiple regression analysis and found that the total determination coefficient (*R*²) was as low as 0.07.

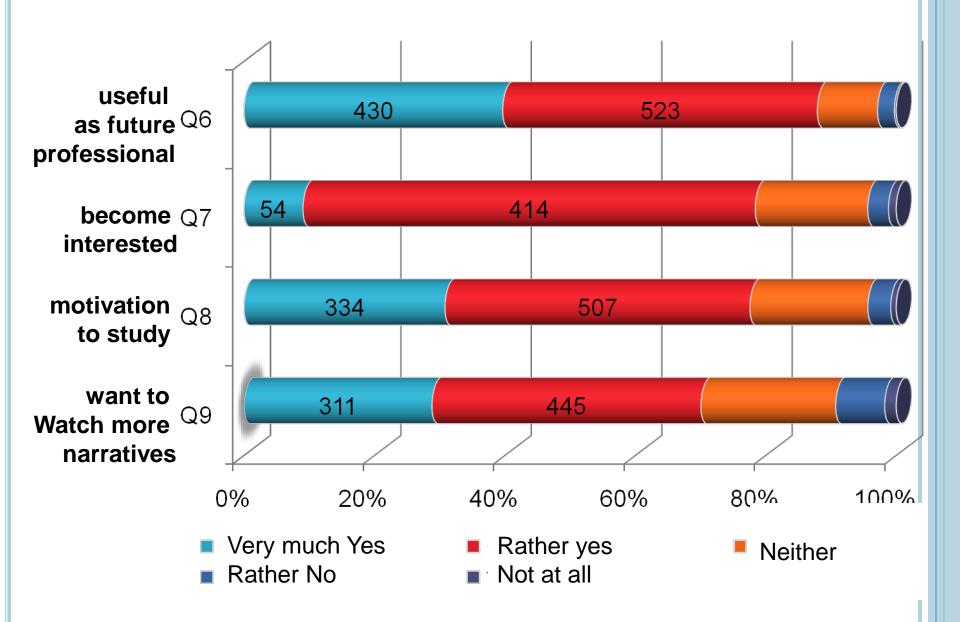
RESULT: EACH QUESTION ITEM

Questio n	n	Mean(SD)	Very much Yes	Rather Yes	Neither	Rather No	Not at all
Q1.	1084	4.33 (0.73)	494 (45.6)	487 (44.9)	74 (6.8)	28 (2.6)	1 (0.1)
Q2.	1084	4.33 (0.70)	478 (44.1)	519 (47.9)	62 (5.7)	72 (2.0)	3 (0.3)
Q3.	1080	3.89 (0.86)	257 (23.8)	523 (48.4)	227 (21.0)	65(6.0)	8 (0.7)
Q4.	1081	4.24 (0.83)	475 (43.9)	447 (41.4)	108 (10.0)	48 (4.4)	3 (0.3)
Q5.	1080	4.61 (0.63)	728 (67.4)	301 (27.9)	38 (3.5)	11(1.0)	2(0.2)
Q6.	1084	4.24 (0.75)	430 (39.7)	523 (48.2)	100 (9.2)	28 (2.6)	3 (0.3)
Q7.	1084	4.35 (0.78)	541 (49.9)	414 (38.2)	103 (9.5)	19 (1.8)	7 (0.6)
Q8.	1084	4.03 (0.84)	334 (30.8)	507 (46.8)	196 (18.1)	38 (3.5)	9 (0.8)
Q9.	1079	3.88 (0.97)	311 (28.8)	445 (41.2)	223 (20.7)	81 (7.5)	19 (1.8)

RESULTS (Q1.~Q5.)



RESULTS (Q6.~Q9.)



RESULTS: OVERALL QUESTIONNAIRE RESULTS

■ Total (Q1.~Q9.)

(n=1058)

Statistics	Total
Mean(SD)	37.91 (4.89)
Median	38.00
Range	9.0 - 45.0

□ Total : Gender difference

Gender (n)	Mean (SD)	t	р
Male (206)	36.19 (5.35)	5.71	10 001
Female (848)	38.34 (4.70)	5.71	<0.001

RESULTS

Comparison of overall means by major

Major	F	Overall p	Mean (SD)	p
Nursing			38.55 (4.85)	
Pharmacy			36.59 (4.66)	***
Physical therapy	10.17	<0.001	37.99 (5.20)	**
Medicine			37.00 (4.28)	
Others			35.30 (4.52)	

RESULTS

Comparison of grades

Grades	F	р	Mean(SD)	р
Freshmen			37.99 (5.20)	
Sophomore			38.71 (4.45)	***
Junior	8.73	<0.001	38.28 (5.07)	***
Senior			36.72 (4.63)	
Graduate students			41.14 (3.34)	***

RESULTS

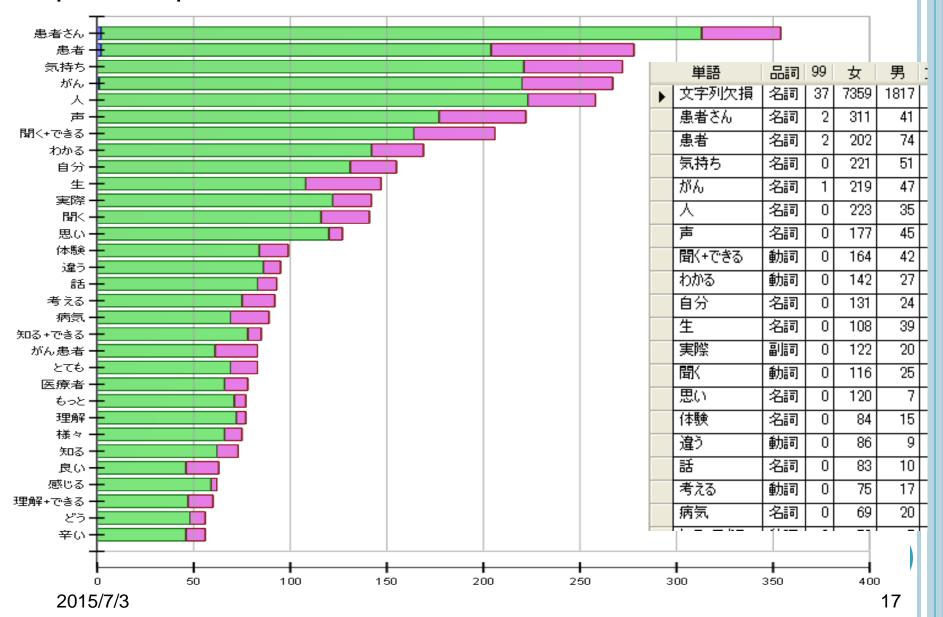
Comparison of lecture style

Style of use	F	р	平均値(SD)	р
Introductory use			38.84 (4.36)	
Group Discussion	7 05	<0.001	37.41 (4.86)	***
Proof example	7.85		38.41 (4.88)	
Case study			42.17 (4.31)	

[RESULTS](2) TEXT MINING ANALYSIS OF OPEN END QUESTIONS

- A text mining analysis revealed that top 15 words used in the answers were: "patients," "feeling," "cancer," "human," "voice," "can hear," "understand," "self," "life," "actual(ly)," "listen," "thought," "experience," and "different."
- The students, who listened to the living voices of the patients, could understand their feelings and got interested in the experiences of the patients.

Top 30 frequent words (Female:Green, Male:Pink)



[DISCUSSION]



- Overall evaluation by the students were very high.
- The positive evaluation was especially high among graduate students (mostly nursing students), who tended to have prior experience as medical professionals
- The freshmen were also motivated to watch DBCPN. For undergraduates, the database was useful as a realistic educational material before their exposure to the real patients.
- The DVD of DBCPN was found to be a useful educational material. If the internet access is available, the teachers can also directly utilize narratives in the DIPEx-Japan website.