Public Perception of Medical Risk: American Evidence

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1

Objective

- Learning from American study (1997, NPSF/AMA)
- In 7 categories (25 questions):
  - safety in general (一般認知): A1~A3
  - safety precautions (預防措施): B1~B3
  - health care professionals (醫護人員): C1~C2
  - patient safety (安全制度): D1~D4
  - awareness of medical mistakes (過失察覺): E1~E3
  - experience with medical mistakes (過失經驗): F1~F6
  - preventing medical mistakes (過失預防): G1~G4

2

Methods

- Sampling: random household nationwide, American adults (age 18+, 1513 responders, ± 2.5% error)
- Survey time: July 30 to August 21, 1997
- Interview: telephone aided by computerized questionnaire, callback procedure
- Data handling: matched by population for age, race, and gender
- Significance test: t-test at 95 % CI for subgroups (past experience, education, risk averse behavior, health insurance, income)

3

Safety in general (A1~A3)

A1: Health care environment safe?

Environment	Mean Score	7 SAFE	6	5	4	3	2	1 UNSAFE	Don't Know
Airline travel	5.2	20%	26 %	30 %	9 %	5 %	2 %	7 %	1 %
The workplace	5.2	14 %	29 %	31 %	11 %	7 %	3 %	2 %	3 %
Health care	***4.9***	***13 %***	***24 %***	***31 %***	***16 %***	***8 %***	***4 %***	***4 %***	***1 %***
Food handling	4.4	8 %	13 %	32 %	21 %	15 %	6 %	4 %	1 %
Nuclear power	4.2	12 %	15 %	21 %	16 %	10 %	7 %	13 %	5 %

4

Safety in general (A1~A3)

A2: Knowing patient safety issues?

Response	Mentioned By
Nothing	***28 %***
Exposure to infection	**20 %**
Patient care received	13 %
Qualifications of health care professionals	11 %
Getting correct treatment	8 %
Safety hazards / precautions	6 %
Misdiagnosis / negligence	**3 %**
Other	11 %

5

Safety in general (A1~A3)

A3: Patient safety get better?

Status	Selected By
Gotten better	**33%**
Stayed the same	**33%**
Gotten worse	**31%**
Don't know	3%

6

Conclusions (1/7)

Safety in general (A) about the health care environment:

- **Rated 4.9, less safer than airline travel (5.2) and work place (5.2), but safer than food handling (4.4)**
- **28% mentioned nothing about patient safety issues**
- **An equal percent of adults believe that it has improved (33%), stayed the same (33%), or gotten worse (31%)**

7

Safety precautions (B1~B3)

B1: Likeliness of taking the precautions?

Precaution or Behavior	Very Likely	Somewhat Likely	Not Very Likely	Not at All Likely	Don't Know
Carry ID / have medical condition	**86 %**	**7 %**	3 %	3 %	1 %
Wear seat belt when in automobile	**81 %**	**11 %**	4 %	4 %	*
Test smoke detectors	**62 %**	**23 %**	11 %	4 %	1 %
Unplug appliances when leaving for a long period of time	**53 %**	**16 %**	16 %	14 %	*
Smoke tobacco	20 %	6 %	7 %	**67 %**	*
Eat raw or very rare beef	8 %	9 %	**18 %**	**64 %**	*

8

Safety precautions (B1~B3)

B2: Risk of following behaviors ?

Behavior	Mean Score	7 RISKY	6	5	4	3	2	1 NOT RISKY
Not carrying ID / have medical condition	**6.4**	**75%**	11 %	6 %	3 %	1 %	1 %	3 %
Smoking tobacco	6.1	65 %	12 %	11 %	4 %	2 %	1 %	4 %
Not wearing a seat belt	6.0	57 %	15 %	14 %	6 %	3 %	2 %	4 %
Not testing smoke detectors	5.8	57 %	11 %	12 %	9 %	4 %	3 %	4 %
Eating raw or rare beef	5.7	49 %	14 %	16 %	8 %	5 %	3 %	5 %
Leaving appliances plugged in	5.0	34 %	12 %	17 %	13 %	8 %	9 %	8 %

9

Safety precautions (B1~B3)

B3: Likeliness of taking safety precautions against health care professionals?

Statement	Very Likely	Somewhat Likely	Not Very Likely	Not at All Likely
Get a second opinion on a serious diagnosis	**80 %**	**14 %**	4 %	2 %
Ask about other possible treatment and compare the risks and benefits	**74 %**	**20 %**	4 %	2 %
Look up information about a new prescription	64 %	22 %	9 %	6 %
Ask questions about medical equipment used for your medical treatment	63 %	24 %	10 %	4 %
Get information on your health care professional's background	36 %	34 %	20 %	10 %

10

Conclusions (2/7)

Safety precautions (B) against health care professionals:

- **70% very or somewhat likely to take certain actions**
- **80% very likely to get a 2nd opinion on a serious diagnosis**
- **74% very likely to compare different treatments**

11

Health care professionals (C1~C2)

C1: Satisfaction of overall health care recently received?

Satisfaction	Selected By
Very satisfied	**56 %**
Somewhat satisfied	**28 %**
Somewhat dissatisfied	8 %
Very dissatisfied	4 %
Don't know / no recent experience	4 %

12

Health care professionals (C1~C2)

C2: Subgroup analysis of satisfaction.

Statement	Yes	No	Don't Know
The health care setting was clean	98%	2%	*
You know how to care for yourself once you left the health care setting	92%	7%	1%
You were given sufficient instructions on how to take prescribed medication	91%	6%	4%
The treatment was carried out just as it was explained to you	91%	6%	3%
Those involved in your care were attentive to your needs	89%	10%	1%
They made an accurate diagnosis	87%	9%	4%
They spent enough time with you	81%	18%	1%
They gave you enough information about all possible treatments to make an informed decision about your care	81%	17%	2%

13

Conclusions (3/7)

Health care professionals (C):

- **84% very or somewhat satisfied**
- **Most satisfied: clean setting, listening to your needs**
- **Least satisfied: not giving enough time, not receiving enough information**

14

Patient Safety (D1~D4)

D1: Current health care system has adequate safety measures?

Has Adequate Measures	Selected By
Agree	**52%**
Disagree	**42%**
Don't know	6%

15

Patient Safety (D1~D4)

D2: Effects of individuals and groups on patient safety?

Individual / Group	Positive	Negative	No Effect	Don't Know
Personal doctor	**95%**	2%	3%	1%
You, yourself	**92%**	3%	5%	1%
Nurses, in general	**88%**	4%	6%	2%
Pharmacists	**88%**	3%	8%	1%
Staff in your doctor's office	86%	4%	10%	1%
Other health care professionals	85%	4%	8%	3%
Voluntary health organization	81%	4%	11%	5%
Doctors, in general	80%	7%	9%	4%
Medical professional associations	68%	11%	15%	6%
Consumer groups	60%	9%	22%	9%
Hospital and clinic administrators	54%	17%	25%	5%
Health insurance plans	**52%**	30%	14%	3%
Federal and state government	**41%**	32%	21%	6%

16

Patient Safety (D1~D4)

D3: Individuals and groups to get information on medical treatments?

	% Reporting yes who…	
Individual/Group	**Have a Personal Physician**	**Do Not Have a Personal Physician**
Your personal doctor	**99%**	N/A
Family and friends	**77%**	83%
Nurses involved in your medical care	73%	83%
Other health care professionals	70%	75%
The pharmacist	60%	63%
Voluntary health organizations	59%	64%
Medical professional associations	51%	57%
Health insurance plans	39%	39%
Consumer groups	33%	39%

17

Patient Safety (D1~D4)

D4: Reliability of individuals and groups as sources of medical information?

	% Selected as Most Reliable who…	
Individual/Group	**Have a Personal Physician**	**Do Not Have a Personal Physician**
Your personal doctor	**82%**	N/A
Family and friends	**6%**	22%
Medical professional associations	3%	12%
Nurses involved in your medical care	2%	21%
The pharmacist	2%	3%
Voluntary health organizations	2%	3%
Other health care professionals	1%	29%
Consumer groups	1%	1%
Health insurance plans	1%	2%

18

Conclusions (4/7)

Patient safety (D)

- **52% believe the system is adequate, however 42% disagree**
- **95% believe their personal doctors and 92% believe themselves has a positive effect on patient safety**
- **80% will seek families and friends for information but little believe it is reliable.**

19

Awareness of medical mistakes (E1~E2)

E1: Awareness of medical mistakes?

Aware of Situation	% Mentioning
Yes	84%
No	16%

20

Awareness of medical mistakes (E1~E3)

E2: Main causes of medical mistakes?

Response	Mentioned By
Carelessness / negligence	29%
Staff overworked /hurried / stressed / understaffed	27%
Miscommunication / lack of communication	13%
Improperly trained / incompetent staff	10%
Human error	8%
Misdiagnosis	6%
Misread RX / pharmacy error	6%
None	5%
Other	10%
Don't know	5%

21

Awareness of medical mistakes (E1~E3)

E3: Manner in which medical mistake was learned?

Response	Mentioned By
Friend / relative told me	42%
Television	22%
Newspaper	15%
Personal experience	12%
Radio	2%
Other	5%
Don't know	2%

22

Conclusions (5/7)

Awareness of medical mistakes (E)

- **82% were aware of it.**
- **Most learned of it from friends/ relatives.**
- **Two major causes perceived were negligence and overwork.**

23

Experience with medical mistakes (F1~F6)

F1: Personal experience with medical mistakes?

Personally Involved	% Mentioning
Yes	42%
No	58%

24

Experience with medical mistakes (F1~F6)

F2: If experienced, number of times medical mistake was experienced?

Response	Selected By
Once	56%
Two to three times	34%
Four to five times	4%
More than five times	4%
Don't know	2%

25

Experience with medical mistakes (F1~F6)

F3: Type of medical mistake?

Type of Mistake	Mentioned By
Misdiagnosis / wrong treatment	40%
Medication error	28%
A mistake during a medical procedure	22%
Administrative error	4%
Communication error	2%
Inaccurate lab results	2%
Equipment malfunction	1%
Other	7%
Don't know	1%

26

Experience with medical mistakes (F1~F6)

F4: Factors leading to medical mistake?

Response	Mentioned By
Carelessness / negligence	29%
Improper training / incompetence	14%
Communication / lack of communication	12%
Misdiagnosis	8%
Inadequate evaluation / testing	8%
Staff overworked / hurried / stressed / understaffed	8%
Misread RX / pharmacy error	6%
Other	14%
None	6%
Don't know	8%

27

Experience with medical mistakes (F1~F6)

F5: How the mistake could be prevented?

Response	Mentioned By
Caregiver more conscientious / thorough	27%
Better qualified caregivers	17%
Listen to patient / work with patient	13%
Check medications / prescribe more carefully	7%
Offer / get second opinion	7%
More / better testing	6%
Improved communication	4%
Surgery more accurate / no unnecessary surgery	4%
Nothing could have prevented	6%
Other	5%
Don't know	8%

28

Experience with medical mistakes (F1~F6)

F6: Action taken to medical mistake?

Response	Mentioned By
Nothing	***38%***
Changed / corrected medication	14%
Changed doctor / hospital	10%
Mistake corrected itself	9%
Required surgery	6%
Lawsuit pending	6%
New tests / treatment / correct diagnosis	6%
Health care professional lost / suspended from job	1%
Other	8%
Don't know	2%

29

Conclusions (6/7)

Experience of medical mistakes (F)

- **42% personally experienced, in which 90% were with 1~4 times**
- **Most related to misdiagnosis or medication error**
- **The mistake is due to negligence, incompetence, or miscommunication, in agreement with survey about prevention**
- **However, majority (38%) did not take action**

30

Preventing medical mistakes (G1~G4)

G1: Reporting medical mistake?

Report a Medical Mistake	Mentioned By
Yes	95%
No	4%
Don't know	1%

31

Preventing medical mistakes (G1~G4)

G2: Where to report a medical mistake?

Individual / Group	Selected By
Site where mistake occurred (e.g., the hospital administrator)	35%
Doctor	33%
Lawyer	7%
The AMA	6%
State licensing board	3%
Other health care professionals	3%
Health insurance plan	2%
The government	*
Other	5%
Don't know	6%

32

Preventing medical mistakes (G1~G4)

G3: Effectiveness of reporting?

Individual / Group	Very Confident	Somewhat Confident	Not very Confident	Not at all Confident	Don't know
Lawyer	39%	30%	18%	11%	1%
The government	39%	47%	14%	*	*
Doctor	36%	47%	14%	2%	*
Other health care professionals	34%	34%	20%	10%	2%
Site where mistake occurred (e.g., hospital administrator)	17%	54%	22%	6%	1%
The AMA	17%	41%	35%	5%	*
State licensing board	10%	63%	21%	7%	*
Health insurance plan	8%	63%	24%	5%	*

33

Preventing medical mistakes (G1~G4)

G4: Solutions for preventing medical mistakes causing injury to patients?

Solution	Very Effective	Somewhat Effective	Somewhat Ineffective	Very Ineffective	Don't Know
Keeping health care professionals with bad track records from providing care	75%	16 %	3 %	4 %	1 %
Better training of health care professionals	69 %	26 %	3 %	1 %	1 %
Patients selecting doctors more carefully	61 %	32 %	3 %	2 %	1 %
Providing patients with information on how to ensure their safety	54 %	40 %	4 %	1 %	1 %
Forming an independent organization where causes of medical mistakes would be investigated	52 %	37 %	7 %	3 %	1 %
Lawsuits against those who make medical mistakes	29 %	43 %	18 %	8 %	2 %
Stricter government regulation of the health care system	27 %	42 %	17 %	12 %	1 %

34

Conclusions (7/7)

Preventing medical mistakes (G)

- **95% will report the case**
- **Majority to site of event (35%) and personal doctor (33%)**
- **However, little (17%) believe reporting to the event site is effective**
- **Best solution to prevent caregiver from providing care**

35

References

1. Brennan TA, Leape LL, Laird NM et al. Incidence of adverse events and negligence in hospitalized patients: results of Harvard medical practice study I. N Engl J Med 1991;324:370-6.
2. Leape LL, Brennan TA, Laird NM et al. The nature of adverse events in hospitalized patients: results of Harvard medical practice study II. N Engl J Med 1991;324:377-84.
3. National Patient Safety Foundation at AMA. Public opinion of patient safety issues research findings. Prepared by Louis Harris & Associates, Sep. 1997.
4. Chiang CF, Risk management for health care system: basics and statistics, 醫療事故風管理研討會，財團法人仁愛綜合醫院，台中，2005年3月12日。

36