Ideologies and Styles of Clinical Care and Medical Record (2004)

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(Introduction)

There are various styles to the clinical care of patients. Although it may not be visibly apparent, a fundamental style lies underneath each medical practice. A clinical style in other words is an expression of an ideology, and we must be aware that such styles are binding us in our approach to patient care. In this paper, the author attempts to identify and form generalizations on several styles and ideologies that are latent in patient care.

A comparison is made on these, and then the Comprehensive Problem-Based System, a defined style which the author perceives as an expressive style of an ideology for rational patient care, is introduced.

(Science Approach) Fig1.Fig2

In 17th century Western Europe, modern science started to evolve through the works of scientists such as Galileo Galilei and Rene Descartes. Descartes devised a methodology to solve complex and difficult problems by breaking it down into small components.

Descartes: Discourse on the Method ¹;.

1. (This part is omitted.)

2. To divide each of the difficulties I examined into as many parts as possible and as may be required in order to resolve them better.

3. To direct my thoughts in an orderly manner, by beginning with the simplest and most easily known objects in order to ascend little by little, step by step, to knowledge of the most complex, and by supposing some order even among objects that have no natural order of precedence.

.4. (This part is omitted.)

If the original problem is 'a whole', its divided components are 'parts.' The overall is analyzed and mapped overall. Once the parts are mapped into the overall, only then does the overall structure become apparent.

(Physician's Approach; Science Approach)

Based on this, let us consider the principles of the methods taken by physicians on patients. A patient is complex and difficult, and subjects are extracted from such patient and solved individually. The number of subjects must be enough to best solve the original 'whole', and each subject that is solved individually must be restored back into the patient's structure so that no information is lost.

A factor that must be acknowledged is that subjects for a patient do not remain static within the course of time; it exists within the axis of time. Thus pathophysiological analysis is the only means to extract subjects required for the patient from a vague overall picture. Furthermore, the solved subjects can only be restored back into the original overall in a pathophysiological manner. In view of the Physician's Approach, let us study some methods that are adopted today. For example, consider how practical exercises are carried out in medical school. A patient is assigned to a medical student as a case study. One subject is given to a student, and the student will simply solve just that task. There is no breaking down or piecing together of the overall. The student proceeds with his one subject without making any connection with the patient. If medical practice is carried out in this style in the real world, it will evidently lead to an Illness Quiz Style.

The Illness Quiz Style lacks the attempt to structure each and every aspect of the overall patient; thus this style will attempt to deduce one major disorder. It will attempt to deduce the name of the disorder from knowledge and experience by looking at the patterns of how findings and symptoms are expressed in clichés that are found in bits and pieces of material, and how they are combined; no pathophysiological analysis is conducted. Any symptom or finding that does not fall into a pattern may be disregarded (even if it may be a significant sign for some other disorder.). Consequently, the patient will be left with one major disorder diagnosis and loose pieces of neglected symptoms and findings.

(Exclusive Organ Method) Fig4

Let us describe the Exclusive Organ Method.

Both Weed's POMR and the Comprehensive-Based Problem System share the same fundamental question: "What is the illness of the patient?" However, the Exclusive Organ Method is built on a different fundamental question: "Is there an exclusive disorder?" In this method, there is a preset diagnosing procedure that can diagnose exclusive disorders, and a patient is subjected to certain tests. If the test results are positive, the patient is labeled with an exclusive disorder. If the result is negative, then the patient has no such disorder. These decisions are made irrespective of the major or other disorders of the patient. In other words, it is more of a sensitivity test. Such tests are powerful tools to discover exclusive disorders and its significance is well recognized in such sense; however it must also be noted that such significance does not focus on the medical structuring of patients.

(Comprehensive Problem-Based System ^{2) 3) 4)}) Fig5.Fig6.Fig7

Problems are extracted from a patient using pathophysiological analysis. There are as many problems as required to define and conceptualize every aspect of the patient. Each problem is studied and solved individually, which means it is possible to document each problem separately. Consequently, a patient may be perceived as a structure consisting of a set of problems.

In other words, medical information concerning the patient is entirely classified by illness, and given a name. As the stages proceed, the name evolves into something more specific. Depending on the problem, the name may remain as given in the basic information, or may evolve into something specific.

Now let us compare Weed's POMR ⁵⁾ and the Comprehensive Problem-Based System. Weed's POMR was developed as a format of medical records. Its aim was to establish a fixed format that clearly shows the contents of the information without disproportioning particular tasks and preventing errors by oversight.

(Problem of Weed's POMR)

Problems of Weed's POMR may be summarized as follows:

1. Clearly established diagnosis-Unexplained findings

2. Active-Inactive

3. Not static in its composition, but as dynamic "table of contents", which can be updated at any time

4. Medical, psychiatric, social, demographic problems

The problem list of this problem is as follows.

	1 1	
	ACTIVE PROBLEMS	INACTIVE PROBLEMS
# 1	Accerelated hypertension	
	Retinopathy	
	Renal disease	
# 2	Hypokalemia-etiology to be determined	
# 3	Vomiting=dehydration(central veneous	
	pressure-0,hematcrit-40	
# 4	Diarrhea-unknown etiology	
# 5	Anemia,secondary to renal disease(Problem#1)	
# 6		Remote peptic ulcer disease
	(The rest is omitted.)	

As one can see, various factors are identified as problems. There are disorders, and there are findings made each time. For problems based on the findings of the time, if values change, then the problem must be changed. Past illnesses are a problem, and social factors are also considered as problems. The numbering order is neither in the order of occurrence nor in the order of importance. It is reasonable to say that it is in the order of recall.

It is apparent that the problem list for this system is more in memorandum form when compared to the problem list of the Comprehensive Problem-Based System.

(Problem of the Comprehensive Problem-Based System) Problem

- 1. The medical abnormality (illness) which t he doctor had identified within the patient, and the name given for it
- 2. A name which is a noun. Work R/O and description (of previous illness) is not a problem.
- 3. The name is specific, and no ambiguities or obscurities are permitted. No more than one name is given (e.g. A name in the style of "A and B" is not permitted.)
- 4. The name describes a certain fact. Suspicions (S/O) are not problems.
- 5. What the doctor will act on

Social factors are a description of the patient's environment which the physician should consider when assessing a patient's problem, and are not problems themselves. The physician should be involved with the patient in a medical manner, but not in a private or social manner. The physician's duties lie in medicine.

Problem List

- 1. Register all the problems.
- 2. Number the problems (#) in the order of registration; if more than two are registered on the same day, number the problems in the order of occurrence. The most recent problem will have the highest number. These numbers will not change. The patient's problem (illness) will remain the same even if the doctor in charge or medical institution may change.
- 3. Enter the date of registration (in brackets.)
- 4. Indicate change in name using " \rightarrow "

5. Clearly indicate outcome

A patient has his/her own life which may consist of various social and life-affecting events: unemployment; divorce; poverty; overwork; commuting and transportation difficulties; child problems and taking care of the family etc. An illness is just one factor within the patient's life, and this is the problem which is to be focused upon in medical care. Factors other than illness should be dealt with by families, partners, employers, social workers, National Tax Agency and Ministry of Health, Labor and Welfare etc., but not by the doctor. These various events are merely components of the patient's environment when assessing an illness, and are not tasks that require medical care that lie within the duties of a physician. Therefore, these factors are not included in the patient's medical problem list, and are written under the patient's social history (medical history) in the basic information.

If the physician does not recognize his error in the scope of his assessment, the patient's problem may become bundled up and the physician cannot accurately identify what needs to be dealt with. The physician should neither financially assist the patient nor spend days and nights taking care of a patient's elderly mother; the physician will not give any advice on marital issues of the patient. If the physician does not acknowledge the scope of his duties correctly, his responsibilities cannot be correctly fulfilled.

The procedure to make up a Problem List is described in Figures 2 and 3.

Basic information is the material collected to make up a problem list, and everything within it must be true fact. Basic information consists of medical history, past material and findings from physical examinations and screening tests, and includes all medical information regarding the patient.

Firstly, all basic information is divided by illness. For each component, a name is given that best describes the illness of the time. An assigned name is a problem in itself. A name defines a set of illnesses, and the patient's illness exists within such set. As searches and studies are conducted, the name evolves to represent a smaller set. If the name represents a set which only includes the specific illness of the patient, then this patient would be the only person in the entire world population of 60 billion people that has an illness with that name.

Each problem may be described in both past and present.

Problems are to satisfy the following:

Prototype for Describing a Problem;

1. Number the problems and state each problem separately.

2. Describe per problem(number#).

PP(from Past to Present : Old $S \cdot O \cdot A \cdot P$, changed to $PP \cdot PF \cdot PC \cdot PL(2021)$):

Medical history and past material of this problem up to that current point

PF(Present Findings, changed from O): Observations and findings regarding the problem at that current point

PC(PresentConsidertion, changed from A): Present Consideration

PL: (Plan):(Diagnosis plan Dx, Treatment Plan Tx, Explaining and Persuading Ex)

Progress notes and discharge records will be entered for each problem. Problems are independent illnesses, and thus should be stated independently. Progress Notes;

- 1. State problems for each instance
- 2. State per problem (number#)

- PP: Progress regarding symptoms from the previous instance up to the present
- PF: Physical findings, and test results, photos, pathology reports etc. are to be attached separately.

PC: Consideration

- PL: Rather than stating plans for each problem, one overall plan may be stated under the most important problem* at that point
- 3. Items that are considered as general common items are to be stated within the most important problem* at that current point.

4. State new problems under new numbers.

* This process will help identify the most important problem Discharge Records;

- 1. State per problem(number#)
- PP: Details before admission (medical history up to admission, abstract of records at medical institutions)
- PF: Findings at 'the point' of admission

PC: State all that happened after admission (changes in symptoms, tests conducted, treatment and results.)

*PL: Plans at the time of discharge (diagnosis, treatment, explanation and persuasion etc.). An overall plan may be stated under the most important problem.

The expression 'the point' needs to be understood correctly. It is obviously understandable that the time frame for 'the point' may vary depending on the condition of the patient.

Let the author briefly state why one plan may be stated under the most important problem. The patient is acknowledged to have the structure of the problem list. The patient's plan will not work separately on each plan; it will work on the entire structure at once. A plan may focus on one specific problem, or it may deal with several problems. For instance, if a subject has numerous complex problems, and if a plan is prepared for each problem as a component of an overall structure but left unassembled, the actual chart will be confusing and elusive.

Imagine a medical chart that includes various medication and diets for different problems, and various diagnosis plans with different dates. All prescriptions and dieting instructions are summarized into one. Of course when preparing a plan, plans are made problem by problem. Therefore in the beginner stage, a plan should be documented for each problem. After a while the physician should be able to acknowledge the significance of documenting plans within the most important problem, for instance in consulting outpatients with complex problem structures.

In some cases, a proper number may not be assigned to a problem. A provisional number is assigned to such problem until a decision is made on whether the problem should be either properly numbered or deleted. The circumstances during this process are as follows.

Uncertain, transient or small case (problems);

1. When the basic information is insufficient or if it is uncertain whether there is an illness worthy of being defined independently; if the illness could be considered as a portion of an already defined problem or when it is either a temporary or small incident, a proper number will not be assigned and instead the issue will be referred to as #a or #b etc. as shown below.

As it can be seen from the rules described, the problem list of the Comprehensive

Problem-Based System is built by precisely focusing on the medical task required for the patient. If an actual problem list is defined following the given rules, the difference between that and Weed's POMR is apparent.

Problem List according to Weed's POMR *2003/Jan/22 at the time of admission

- #1 Jaundice(s-bilirubin 13mg/dl)
- #2 Fever
- #3 Hx. of hepatitis
- #4 Resected mediastinal tumor
- #5 Appendicytis(resected)

2003/Jan/23(after abdominal US,CT carried out)

- #1 Choledocholythiasis
- #2 Suspicion cholecystitis
- #3 Hx. of hepatitis
- #4 Resected mediastinal tumor
- #5 Appendicytis(resected)

*2003/Aug/20 at the time of death

#1 Cerebral hemorrhage

Problem List of Comprehensived Problem-Based System

- *2003/Jun/22 at the time of admission #1 Myxedma [date of entry]
 - →Myxedema(#2)→cured [same as above]
- #2 Thyroid atrophy
- #3 Knee-joint osteoatrthritis
- #4 Obstructive jaundice
- #5 Fever

Past Hx.:Mediastinal tumor resected

*2003/Jan/23 after abdominal US,CT carried out

- #1 Myxedma
 - →Myxedema(#2)→cured
- #2 Thyroid atrophy
- #3 Knee-joint osteoatrthritis
- #4 Obstructive jaundice →Obstructive jaundice(#6)
- #5 Fever→Suppurative cholangitis
- #6 Choledocholythiasis

Past Hx.:Mediastinal tumor resected

*2003/Aug/20(at the time of death)

- #1 Myxedma →Myxedema(#2)→cured
- #2 Thyroid atrophy
- #3 Knee-joint osteoatrthritis
- #4 Obstructive jaundice →Obstructive jaundice(#6)
- #5 Fever→Suppurative cholangitis
- #6 Choledocholythiasis
- #7 Coma

→Cerebral hemorrhage

Past Hx.:Mediastinal tumor resected

Discussions regarding the Comprehensive Problem-Based System;

The points below illustrate certain arguments that rise in a physician's mind when defining a problem list using the Comprehensive Problem-Based System. The questions will be the same whether the physician considers these problems alone or with other persons. The rules clearly define what the physician must consider, so arguments would not wander away into unknown directions. A well-focused, rewarding discussion may be achieved between various people.

- 1. Are symptoms and findings correctly grouped? Which problem is a given finding grouped into? Is the understanding correct? Should the given finding not belong to another problem?
- 2. Is it not a separate illness or separate problem? Should the matter be handled simply as a mere finding and not a problem?

- 3. Should two problems be combined as one problem? Should the finding be defined as #a instead of having a proper problem number?
- 4. Can the problem be called by that name? Can it be called by that name clinically, even if tests and findings have not been obtained? Should the name be withheld until aspects are verified?
- 5. What are the grounds for giving a particular name on a particular date? Can the problem be evolved to the given name by the given date? Can't the name be changed on that given date?
- 6. The reasons for why that test was conducted are not perceivable by the list. If a certain symptom is already understood within an existing problem, it should not become a fundamental basis for a different problem.

Obviously, these prospects require orderly and systematic knowledge. Thus, it will teach us how to learn in a directional manner. Conferences held in this way will not just only accept other person's knowledge passively but also open doors for active thinking by each participant thereby stimulating exciting and intelligent discussions.

(Conclusion)

As L.L. Weed stated ⁶⁾, "we must not judge the effectiveness of a doctor by the length of time the doctor may spend with patients or their specialized skills." Rather, doctors should be evaluated by: the integrity and accurateness of the basic information they prepare; speed and economy at which they obtain patient data; their advisability in the stereotyping of the overall problem; their intelligence displayed in carefully processing and pursuing each problem and the overall quantity of medical care that they may provide.

The author wishes to stress that this statement is no different to the Comprehensive Problem-Based System, regardless of the contents of the problem list.

Reference

- 1) Descartes: Discourse on the Method ;Internet Encyclopedia of Philosophy 2007
- 2) Rational Approach to Clinical Care(Japanese1965);H.Kurimoto(KURIMOTO)
- The Comprehensive Problem-Based System(Japanese2007);H.Kurimoto(KURIMOTO).
- 4) RinshouNaikagakuSinyrouKouzaHomePage (http://naikagaku.la.coocan.jp/index.html)
- 5) Medical Records That Guide and Teach;New England J. of Med; .L.L.Weed;vo;278No11No12,1968
- 6) Medical Records, Medical Education, and Patient Care;L.L.Weed(Japanese version 1973)



Fig2 Physician's approach; Divide difficulties





Fig6 Comprehensive Poblem-Based System

