Pedagogical Reflection on the Biopsychosocial Approach for Chronic Pain Assessment in Physician-Patient Communication

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Pedagogical reflection on the biopsychosocial approach for chronic pain assessment in physician-patient communication

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En kort beskrivning och planering:

Although a biopsychosocial (BPS) model of illness and disease is well-known today among the health professionals, it is not always easy in the clinical application. In this work, I intend to reflect on the BPS approach used in my clinical practice as a physician in a pain and rehabilitation clinic in the past years. I will also discuss a few pedagogic concerns of BPS dimensions applied in both physician-patient meetings and group patient supervisions.

- Physician-patient meetings: I will reflect on communication issues when I face the different expectations from patients, using a typology of four different physician-patient relationships as lens (paternalistic, informative, interpretive, and deliberative patterns).
- Group patient supervision: I will reflect on the communication between me as a physician-educator and patients when I hold the patient education in the pain rehabilitation program.

The materials I/we use in the presentation and the practical approaches will be discussed. The discussion will also include a reflection about culture influence on the BPS application in physician-patient communication, based on my own medical education and working experiences in two countries (China and Sweden) with many cultural differences.
Introduction

Today, most health professionals agree that the practice of medicine is not only limited to knowledge about biological functions and their dysregulation. Alongside biological mechanisms, psychological and sociological components are of importance for both understanding the underlying pathophysiology and for determining proper treatment to illness, disease, and the perception of discomforts. Historically, the biomedical model was dominant. In the late 1970’s, George Engel published a landmark paper in Science proposing a biopsychosocial (BPS) model of illness and disease[1]. This framework for the three BPS dimensions of medicine is now widely used in medical research, supervision, and healthcare practices [2-4]. The BPS approach of understanding illness and disease is particularly applicable to pain management [5, 6].

We are familiar with the BPS framework of pain, and we have learnt that is important in patient-physician communication during our medical education and continued specialist education. When I made a non-exhaustive search in google with the search phrase ‘biopsychosocial model of pain and physician-patient communication’, I received about 585 000 results that only took 0.64 seconds. Indeed, we are not lacking the theoretic formulation [7-9]. Yet, how good are we in our daily clinical practice? In this work, I intend to reflect on the BPS approach used in my clinical practice as a physician in a pain and rehabilitation clinic during the last years. I will also discuss about a few pedagogic issues of BPS dimensions applied in both physician-patient meetings and group patient supervisions. Since I have had my medical education and clinical training in two countries (China and Sweden) with great different cultural backgrounds, perhaps this experience allows me to be open-minded and aware of different perspectives.

Reflections on BPS approach in physician-patient meetings

As shown in table 1, four models of the physician–patient relationship were first proposed by Emanuel & Emanuel [10] and interpreted in patient education by clinicians [11, 12]. These models outlined the interactions between the health professionals (i.e. physician) and patients during the process of educating or delivering knowledge about medical care.
Table 1 Definitions of four models of the physician–patient relationship

<table>
<thead>
<tr>
<th>Model</th>
<th>Paternalistic Model</th>
<th>Informative Model</th>
<th>Interpretive Model</th>
<th>Deliberative Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>The physician’s task is...</td>
<td>To share objective criteria for determining what is best.</td>
<td>To provide all the available facts and the patient’s values for determining the treatments</td>
<td>To interpret the patient’s values as well as providing facts</td>
<td>To deliberate about what kind of health-related values the patient could and should pursue</td>
</tr>
<tr>
<td>The physician may behave like this...</td>
<td>I decide for you</td>
<td>I give you facts</td>
<td>I give you facts to help you find your preferences</td>
<td>In addition, I tell you my preferences*</td>
</tr>
<tr>
<td>The patient’s autonomy is...</td>
<td>Assenting to the physician’s view</td>
<td>Controlling over the medical decision</td>
<td>Self-understanding</td>
<td>Moral self-development</td>
</tr>
</tbody>
</table>

Note: * my preferences: professional experience with evidence based on science and proven clinical experience.

As a clinician, I am fully aware that none of the categories is simply good or bad, right or wrong, favored or undesirable. In everyday practice, we meet different patients who may fit in one of the models, or who may fit in more than one model in different health issues, or who move between models due to the self-development during the medical consultations. For years I have received medical training, from a junior doctor to a specialist physician, and gradually learned to play different roles to meet the patients’ need. Since health is a dynamic process, we have no reason to insist that individuals (both patients and physicians) are unchangeable.

A clinical approach

It is well worth taking time to identify the patient’s need and preference during the short physician-patient meetings. In a typical new meeting, I usually ask my patient his/her wish to be helped with pain complaints. To address one’s own expectation at the beginning of the meeting is somewhat special, if we imagine that consultations in many other specialties without any hesitation aim to serve the patients with the best investigations (a series of diagnostic tests with objective findings), medications or operations. The answers given by my patients about their wishes in the rehabilitation to a great extent indicate which physician-patient...
communication pattern seems appropriate to use. The consultation may be more efficient if I manage to act according to the right model at the right time (table 2).

Table 2 A brief description of the BPS framework explanation in the four communication models

<table>
<thead>
<tr>
<th>Model</th>
<th>How is BPS framework explained?</th>
<th>Core process and goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paternalistic Model</td>
<td>To teach the patient about which biological, psychological and social factors are important in her/his case</td>
<td>A clear presentation with plain language to ensure the understanding.</td>
</tr>
<tr>
<td>Informative Model</td>
<td>To inform not only BPS perspective, but also other attempts such as previous investigations, treatments and other explanations (i.e. neurobiology and neurophysiology models of pain).</td>
<td>To reach a consensus on a BPS framework deriving from the medical evidence.</td>
</tr>
<tr>
<td>Interpretive Model</td>
<td>To provide BPS explanation as a professional suggestion and interpretation to the patient’s pain experience.</td>
<td>To figure out the patient’s preference by capturing relevant details about the patient’s life (a narrative story). To wait (i.e. to reserve a new meeting) until the patient understands his/her own preference and finally agrees that my suggestion</td>
</tr>
<tr>
<td>Deliberative Model</td>
<td>Several steps are taken together with the patient to discover and identify health-related factors that match the BPS model. The physician is not afraid to sometimes carefully deliberate with the patient.</td>
<td>To reach the goal that the patient obtains power to find his/her views and make decision to accept the BPS concept.</td>
</tr>
</tbody>
</table>

Summary

It seems easier to meet patients who fit Paternalistic Model (time saving) and Informative Model (facts oriented) than the patients who belong to Interpretive Model and Deliberative Model (interaction demanding and time consuming). However, my own experience from clinical practice is that patients who attempt to take an active role in pain management by investing their time in understanding the pain and rehabilitation concept are more likely to have better outcomes. Deliberative Model, from my point of view, is supposed to be the best match in the pain rehabilitation. However, individuals may not perfectly belong to one model and
remain unchanged. Among our patients in the specialist care, a majority have no idea to handle chronic pain and not ready to accept whatever advice the health professionals have given. It requires that I adapt myself to another role, rather as a teacher/coach than as an empathic doctor who is expected to relieve the patient’s pain [13]. One demanding task in my consultations is to help my patients recognize the value to understand their own pain experience. To ensure the BPS model of explaining pain is understood and accepted, I strive to lead my patients eventually to be willing to take time and deliberate in their own decisions, which is a prioritized in the rehabilitation process. A critical first step is to enable to open a discussion and show my willing to hear patients’ perspectives of pain treatment. After my explanation of a BPS model of explaining pain, I need to quickly capture patients’ feedback. How do they handle the information about BPS? With an understanding of patients’ perspectives, the further discussions can make it possible to encourage the patients to develop their own views of pain so they may begin to question about their expectations, wish to reconsider their realistic needs, find their own strengths and weakness, and ultimately achieve goals in the pain rehabilitation.

**Reflections on group patient supervision**

Group patient education including a BPS model of pain is a vital part of interdisciplinary pain rehabilitation programs. Our intention is that group supervision as a complement to the individual physician-patient meetings, can help patients better understand their pain sufferings. For our physicians who practice supervisions, group supervision also provides unique teaching and mentoring experience. I began to practice this type of supervisions at my first year of residency (junior doctor). Following my senior colleges, I learned teaching by practicing. For years, in parallel to my growing clinical experience as well as pedagogical knowledge, I began to reflect on the skills used in the supervision and how we can do our best in the group education.

The materials used in the supervision should be easy to understand considering a limited level of education or a practical learning style of many patients [14]. For example, BPS model of pain is explained as ‘one’s pain experience is constantly interacts with several key aspects. We do not directly name the BPS at the beginning. Instead, we attempt to introduce patients a holistic perspective towards biological process (genetics and physiological), psychological influences (thoughts and feelings),
and sociocultural context (social roles in different stages of lives and learning from lived experience). We use simple pictures, real examples, metaphors, videos from the multimedia, sketches, and handouts with question-answer assignments. Nevertheless, we do not avoid the medical terms. An advantage in the group supervision is to take time to explain commonly medical terms with help of a plain language, metaphors, and provide opportunities to have a discussion (Q & A). The difficult medical terms are shown in the slides and explained by simple words beside. We also introduce latest research on pain explained by BPS models so patients may have a glance how we interpret research results to real-life practice.

Group supervisions led by health professionals can be affected by their authority and superior positions, possibly because health professionals are regarded as the experts and decision makers for pain treatment. Many times, I observe that some patients are silent or constantly making notes during the whole supervision. Are they trying to memorize all I presented here? Do they agree with me? Research showed that patients with positive rehabilitation effects had a shared understanding of their pain with their professional [14]. Today, we know clearly that this positive result is produced by shared and collaborative supervisions together with the patients’ engagements [14, 15].

What is the purpose of group supervision in the pain rehabilitation programs? In my senior residency years, I began to think about the role of ‘peer support’ in the rehabilitation structure. It may be like other collective educations (i.e., higher education), that group supervision is a kind of collaborative knowledge-sharing activities [15, 16]. However, it is also different from the other educations. The goals are not to get points or certificate, but to enhance the understanding about their own disease and the varied individual pain experiences. In the group supervision, one important approach is to offer detailed anonymous cases, to explain how pain affect the different aspects in BPS models and how they interact with each other in one’s living experiences. These real cases inspire the group discussions and share personal pain experiences, which may result in the agreement and support from other group members.

Further reflections

Engel criticized and explained why the limitations of biomedicine were overlooked. He stated that ‘biomedicine not only has provided a basis for the
scientific study of diseases, it has also become our own culturally specific perspective about disease, that is our folk model’ [1]. His insight inspired me to compare my current clinical practice with earlier working years in Shanghai, China. Traditional Chinese medicine (TCM) can be part of a culturally specific perspective about disease and health in China. TCM’s view is surprisingly like the BPS approach to explain the illness and health [17]. As far as I have understood, TCM tells us that a human being’s body is a system where anatomical structures is less important and relationships among the body, mind, emotion, and the outside world such as the environment and social interactions is more important in the disease assessment. Despite that I was educated in western medicine and worked in a western-style hospital in Shanghai, a BPS model in explaining some chronic somatic diseases seemed to be frequently applied in clinical practice. Medicine, especially TCM, is not generally equivalent to a scientific approach. Patients would like to accept a BPS perspective and the behavioral and psychosocial data are regarded as a doctor’s clinical experience. The last two are perhaps not a must to be based on ‘science and proven experience’.

Indeed, patient education as an important part of pain management allows our clinicians to provide patients with the knowledge, understanding, and skills to reduce both their pain and disability. It is also notable that not only the knowledge we attempt to share with our patients, but also an honest and humble attitude towards explaining pain we want to present to our patients. That is, we do not all about pain and all that we strive to help our patients is based on the updated knowledge about health science.

Conclusion

In the process of pain rehabilitation, the role of the clinician in many cases is adjusted to be a teacher/coach. One important task is to correctly apply BPS approach of explaining pain in both individual physician-patient meetings as well as group patient supervisions. We health professionals need to be keen observers, adapt the knowledge to the individual levels and optimize the education resources in the supervision.

References


