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# The Bio-Psycho-Social Model: How accurate and valid is it?

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I, like many others, used to frame the management of psychiatric patients in what is called "*bio-psycho-social model*". This way of thinking about management has been known in this way for a long time. Under the "bio" piece I used to put physical treatments like medications and ECT, while the appropriate psychotherapy will be put under the "psycho" piece. Then, the "social" piece will go with the different kinds of social help the social worker can offer to the patients; for example arranging for placement or financial support.

With my growing knowledge in the area of psychotherapy I started to doubt the accuracy and validity of this model where we separate the "psycho" and "social" pieces from the "bio" piece. In my understanding separating the "psycho" and "social" pieces implies that treatments under them are not "bio". In fact, recent evidence has indicated that treatment modalities that we categorize under the "psycho" and "social" pieces are exerting their effect through biological mechanisms. In other words the treatment modalities under the "psycho" and "social" pieces are probably biological treatment.

In that sense, let me mention certain evidences that support the above idea and indicate that the psychological and social interventions converge with biological treatment in exerting the desired outcome:

*First*, Eric Kandel has provided an elegant proof, winning the Nobel Prize for demonstrating that environmental stimuli produce lasting changes in the synaptic architecture of living organisms [1].

*Second*, Imaging studies have showed that patients who show clinical improvement from psychotherapy show changes in brain metabolism that are similar to that seen in patients successfully treated with medications. So psychotherapy is a form of biological therapy [2,3].

*Third*, positive transference which is a psychological factor within the therapeutic relationship has a major role in improvement. The later is in fact a translation of certain underlying biological changes that has occurred [4,5].

Based on the above, when it comes to management, I would say that all treatment interventions I provide to the patient produce their effects through certain biological changes in the brain. In keeping with this, separating the "psycho" and "social" pieces from the "bio" piece may not be so accurate. If this is true, then how should I frame my management more accurately?

One suggested view is to frame management in "Pharmaco-psycho-social" model. So, what I will mention under "psycho" and "social" will not be considered as "pharmaco" by any means. So the three pieces of this model will be certainly mutually exclusive. However, another question may be raised which is: where to put treatment modalities like ECT and Trans-cranial magnetic stimulation? These therapies are not "pharmaco", "psycho" or "social"!

In response to that I would suggest what I myself call "Somato-psycho-social" model. That seems more accurate to me. The three components of this model will definitely be mutually exclusive. So under "Somato" I can mention all somatic treatments like medications, ECT, Trans-magnetic stimulation, light therapy, etc. So "Somato" will include all what was referred to as biological in the original model mentioned in the beginning.

To conclude, the model of "Bio-psycho-social" with regard to management of psychiatric patients might be in need for further reviewing and read justing in light of the suggested options mentioned above. The "Somato-psycho-social" model seems to be more congruent with current evidence.

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