Editorial

The bio-psycho-social model and the American Diabetes Association European Association for the Study of Diabetes position statement on management of hyperglycemia

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Introduction

The current joint position statement of the American Diabetes Association (ADA) and European Association for the Study of Diabetes (EASD) makes a strong call for a patient-centered approach to the management of hyperglycemia in type 2 diabetes.[1] The position statement discusses the background, rationale, and definition of this approach. It highlights glycemic targets, available therapeutic options, implementation strategies, while noting other considerations in planning management of hyperglycemia. Various factors which determine the choice of glycemic targets, therapeutic interventions, and management strategies, are analysed in detail. The concordance of this statement with the bio-psycho-social model of health and disease are discussed here.

Patient-Centered Approach

The preferred term used by the ADA-EASD authors for managing hyperglycemia is 'patient-centered approach', which finds mention in the title, as well as in the text. The preamble specifies the necessity for an updated statement, including availability of fresh information regarding glycemic control, anti-diabetic drugs, and 'increasing *calls for a move toward more patient-centered care*'.

Repeated references to this concept in this statement reinforce the importance of patient centered philosophy:

"*... within the context of the needs, preferences, and tolerances of each patient...*"

"*... the patient and disease factors that drive clinical decision making...*"

" *...will require thoughtful clinicians to integrate current evidence and other constraints and imperatives...*"

The authors reiterate the fact that at the center of diabetes care praxis is the person with diabetes:

"*Ultimately, it is a patient who makes the final decisions...;... their implementation occurs in the context of the patients' real lives and relies on the consumption of resources (both public and private)*".

"*...the patient's preferred level of involvement should be gauged...*".

All these observations highlight the holistic nature of diabetes care. Additionally, these observations can also be analysed within the framework of the bio-psycho-social model of health and disease. This article views the current ADA-EASD position statement on management of hyperglycemia through the prism of the bio-psycho-social model.

Bio-Psycho-Social Model of Disease

The bio-psycho-social model was proposed in 1977 by GL Engel, who argued that the biomedical approach to disease

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left no room for understanding the social, psychological and behavioral dimensions of illness. He put forward a bio-psycho-social model, hoping that it would provide a blueprint for research, a framework for teaching, and a design for healthcare.[2]

Thirty-five years have passed since his exposition. The bio-psycho-social model has gained popular utility not only in psychiatry and clinical psychology, but also in other medical specialties, especially those dealing with chronic disease such as diabetes.[3] The bio-psycho-social model also underlies the DAWN philosophy of diabetes management.[4]

In spite of emerging evidence and repeatedly voiced support for using the bio-psycho-social model in diabetology praxis, the ADA-EASD position statement falls short of using this terminology in its exhaustive coverage of the subject.[1] Does the ADA-EASD position statement concur with the bio-psycho-social model? Is it appropriate to say that the position statement is based upon this model, and reinforces its centrality in diabetes care? This critical review of the ADA-EASD position statement document brings to notice the psychosocial elements of diabetology that have been highlighted by the authors. The same has been explored across different sections of this position paper.

Overview of Diabetes

The ADA-EASD position statement highlights the association of type 2 diabetes mellitus with increased risk of serious psychiatric illness and cognitive decline,[1] thus underscoring the cross-talk between psychiatry and diabetes. However, no further details are provided.

Choice of Glycemic Targets

The position statement quotes Ismail-Beigi *et al*.,[5] listing seven elements of decision making. The points listed in the statement include various biological, psychological, and social factors. Rearranging these factors in tabular form helps to discern the psychosocial aspect of diabetes mentioned in this article [Table 1]. Although the term 'bio-psycho-social' has not been used explicitly, the acceptance of concept is implicit in the listed elements for decision making.

Choice of Therapeutic Options

While discussing the choice of therapy available, the ADA-EASD position statement hints at psychosocial aspects of care.

Table 1: Elements of decision-making in glycemic target-setting

Biological	General health related
	Life expectancy
	Comorbid conditions
	Diabetes-related
	Disease duration
	Vascular complications
	Risk of hypoglycemia/adverse events
Psychological	Patient attitude
	Expected treatment efforts on part of patient
Social	Available resources
	Available support system

"*...periodic counseling should be integrated into the treatment programme...*"

"*...healthy foods that are consistent with an individual's preferences and culture...*"

Choice of Implementation Strategies

The ADA-EASD position statement clearly puts the person with diabetes at the centerstage, while advising how to choose, craft, and implement strategies for glycemic control.

"*All treatment decisions, where possible, should be made in conjunction with the patient, focusing on his/her preference, needs, and values...*"

"*Specific patient preferences should play a major role in drug selection...*"

The need to empower patients with information needed for effective shared decision making is emphasized.

"*The rationale, benefits, and side effects of each new medication should be discussed with the patients...*"

A specific mention has been made to consider financial health, both at a personal and a governmental level. One should count not only costs of anti-diabetic drugs, but also assess costs of diabetes care in a holistic manner, including those of monitoring, investigations, side effects, and complications.

"*Costs are a crucial issue driving the selection of glucose-lowering agents in many environments*"

"*Due consideration should be given to side effects and any necessary monitoring, with their own cost implications*"

A careful reading of the fine print of ADA-EASD statement showcases the fidelity of this position statement to the bio-psycho-social model.

Other Considerations

Further evidence for the concordance of the position statement with the bio-psycho-social model comes from its recommendations related to the elderly and its acceptance of the facts that racial and ethnic factors may play a role in deciding diabetes care strategies.

"*Older adults may be both socially and economically disadvantaged*"

"*While certain racial/ethnic features that increase the risk of diabetes are well recognized, using this information to craft optimal therapeutic strategies is in its infancy*."

Future Directions/Research Needs

While making suggestions for future research, the ADA-EASD position statement concludes with a reminder for further research on psychosocial health in diabetes, including costs and quality of life. This again emphasizes the current vacuum (and more importantly acceptance of importance of these issues) in our understanding of the bio-psycho-social model of disease, as applied to diabetes.

"*There is a significant need for high quality research regarding costs and quality of life...*"

Conclusions

Engel proposed the bio-psycho-social model as a blueprint for research, a framework for teaching, and a design for action in real life health care.[2] The current hyperglycemia management guidelines, too, hope to achieve these aims. The position statement of ADA-EASD aims to encourage research, help diabetes care practitioners understand currently available strategies and modern glycemic targets, and hope to stimulate improvement in glycemic control.

The ADA-EASD statement has acknowledged the important role of patient participation in diabetes care by using the guiding phrase 'patient-centered approach'.

While the term 'bio-psycho-social' has not been used verbatim in this document, a thematic analysis of the paper clearly shows that ADA-EASD understand, appreciate, support and promote this concept in diabetes care.

Enhanced understanding of this concept, fostered by exhaustive debate, should encourage active use of this term in diabetology discussion and praxis. This will contribute to the aims originally elucidated by Engel: Better research, teaching, and patient care. This editorial hopes to help accelerate this very process, for the benefit of people with diabetes.

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