Brief Communication

Salutogenesis in Type 2 Diabetes Care: A Biopsychosocial Perspective

Sanjay Kalra, Manash P. Baruah[1], Rakesh Sahay[2]

Department of Endocrinology, Bharti Hospital, Karnal, Haryana, [1]Department of Endocrinology, Excel Hospitals, Guwahati, Assam, [2]Departmen of Endocrinology, Osmania Medical College, Hyderabad, Telangana, India

Abstract

Type 2 diabetes has emerged as a major threat to global public health. In spite of best efforts by health care professionals, persons with diabetes, and the community at large, remain unsatisfied with the approach to diabetes management .This brief communication utilizes Antonovsky's concept of salutogenesis, to suggest a person friendly and community friendly framework for diabetes care. Salutogenesis is used as a means of studying the biopsychosocial domains of diabetes , and as a guiding principle for health related communication . Adoption of a salutogenic approach to diabetes care should help improve outcomes and satisfaction with health care.

Keywords: Biopsychosocial diabetes communication, patient centred care soft skills

Perspectives in Medical Care

It was nearly 40 years ago that Aaron Antonovsky proposed the concept of salutogenesis (salus = health), as opposed to pathogenesis, of disease. Antonovsky, a medical sociologist, constructed a framework based predominantly on the psychological attributes of a person. By measuring "sense of coherence," he sought to quantify the degree to which an individual could comprehend health/ill health (comprehensibility), take measures to maintain/improve health (manageability), and find meaning in this exercise (meaningfulness).[1]

At around the same time, evidence-based medicine was beginning to develop. Clinical trials had begun to challenge strongly held dogmas, and the use of glucose-lowering drugs was being debated. If trials such as the Diabetes Control and Complications Trial provided proof for the benefits of insulin use,[2] others such as University Group Diabetes Program underscored the potential pitfalls of pharmacological therapy.[3]

A contemporary model of health, created by Engel, helped create a bridge between the psychological determinants of health, as espoused by Antonovsky, and the biomedical attributes of disease and its treatment.[4] The biopsychosocial model of health strove to provide equiprimacy to biological, psychological, and social determinants of health. This model created a pragmatic framework with which to study and manage chronic disease.

Type 2 Diabetes

Classically, the salutogenic theory and biopsychosocial model have been employed in psychology/psychiatry and medical sociology. However, type 2 diabetes mellitus is a perfect exemplar of the relevance of these theories to chronic disease management.

Type 2 diabetes mellitus is a multifaceted syndrome, characterized by a wide array of physiologic defects, clinical presentation, complications, and psychosocial ramifications. Individual, family and societal factors modulate the course of diabetes. It is well documented that glycemic control and long-term diabetes outcomes can be improved by following a comprehensive management strategy.

The role of patient-reported outcomes (such as quality of life) in assessing health is also well understood in diabetes care. So is the need to limit negative components of living with diabetes, such as diabetes distress.

Access this article online

Quick Response Code:

Website: www.ijem.in

DOI: 10.4103/ijem.IJEM_224_17

Address for correspondence: Dr. Sanjay Kalra, Department of Endocrinology, Bharti Hospital, Karnal, Haryana, India. E-mail: brideknl@gmail.com

How to cite this article: Kalra S, Baruah MP, Sahay R. Salutogenesis in Type 2 diabetes care: A biopsychosocial perspective. Indian J Endocr Metab 2018;22:169-72.

Our Shortcomings

In spite of this welcome evolution, persons with diabetes still remain unsatisfied with modern diabetes care. This is one of the reasons why complementary and alternative medicine (CAM) is so popular, despite the lack of evidence and rationale.[5]

CAM is perceived to be a salutogenic means of living life with diabetes, as opposed to modern medical care, which follows a pathogenetic or disease-oriented approach. Such perception leads to inappropriate health-care seeking behavior and acts as a barrier to achievement of optimal therapeutic outcomes. It also fuels dissatisfaction among both persons with diabetes and their health-care providers.

Salutogenesis as a Solution

Sense of coherence

The theory of salutogenesis provides answers to these challenges. The three aspects of coherence that Antonovsky listed, i.e., comprehensibility, manageability, and meaningfulness, can be paraphrased in terms of the diabetology lexicon [Table 1]. Comprehensibility implies diabetes literacy and numeracy, which can be achieved by therapeutic patient education.[6] This must be designed to ensure information equipoise[7] between the person living with diabetes and her/his care provider. Manageability is a feeling of self-confidence that occurs if adequate diabetes self-management skills are taught. Minimizing the discomfort of change,[8] associated with life with diabetes, is an important aspect of ensuring manageability. The third component of the salutogenic triad, i.e., meaningfulness, is relatively difficult to define. The emotional state of meaningfulness is akin to self-determination in living with diabetes. This is achieved through a sustained process of person-provider communication, including counseling and support.[9] Coping skills training to minimize diabetes distress overlaps both manageability and meaningfulness, and helps improve overall sense of coherence.

Table 1: Sense of coherence in diabetes care

Antonovsky's coherence	Modern diabetes care strategy	Management target
Comprehensibility	Therapeutic patient education	Information equipoise
Manageability	Diabetes self-management skills	Self-confidence
	Minimizing discomfort of change	Tolerability, ease of use of interventions
Meaningfulness	Counseling and support	Self-determination

Table 2: Deficits and resources in diabetes care

Domain of health	Generalized resource deficits	Generalized resistance resources
Biomedical	Metabolic comorbidity	Lifestyle modification
	Acute and chronic complications	Drug
Psychological	Diabetes distress	Coping skills training
	Psychiatric comorbidity	Appropriate therapy
Social	Inadequate family/ societal support	Social support
	Diabetes hearsay	Proactive governmental policy

Resources versus deficits

The salutogenic theory uses a positive thought process to describe health, focusing on factors that support well-being, rather than those that cause disease (pathogenesis). It describes the relationship between stress, coping, and health. To do so, it suggests the existence of "generalized resistance resources (GRRs)" which continuously try to limit "generalized resource deficits (GRDs)."[1] GRDs such as health care, finance, and social support try to limit the impact of stress and hardship. If they are insufficient to handle a particular situation, illness will result. However, if GRRs are robust, the impact of hardship can be limited.

Diabetes care professionals work hard to improve the GRRs of a person with diabetes and minimize the GRDs. This is done in multiple ways. In the biomedical domain, the use of aspirin, statins, blood pressure-lowering drugs, and cardiovascular safe/beneficial glucose-lowering interventions helps strengthen the resistance of the body to unwanted complications.[10,11] Simultaneously, these medications reduce "metabolic deficits." We can, therefore, expand Antonovsky's definition of GRR and GRD to include metabolic and glycemic resources and deficits.

Biopsychosocial prism

Diabetes is not limited to quantitative variables such as glucose, weight, blood pressure, or lipids. The diabetes care provider also tries to assess emotional and social domains of health. Diabetes distress,[12] for instance, is a manifestation of a resource deficit. This can be bridged by providing support to enhance coping mechanisms, i.e., "resistance resources."

Table 3: Domains of salutogenesis in diabetes care

Domain	Target	Strategy	Tool
Psychological	Self-empowerment	Minimizing diabetes distress	Self-management skills
	Self-esteem	Management of psychiatric comorbidity	Pharmacological therapy
Social	Social acceptance and support	Community support	Advocacy
	Health-care system capability and support	Government support	Social marketing
Biomedical	Beneficial CVO/microvascular outcomes	Glucose lowering	Lifestyle modification
	Disability limitation	Metabolic modulation	Drugs with beneficial CVO

CVO: Cardiovascular outcomes

Table 4: Salutogenic factors in diabetes care

Lifestyle factors
Regular exercise/physical activity
Moderate diet
Stress management
Psychological factors
Emotional health
Diabetes distress
Social factors
Family support
Diabetes-friendly environment
Diabetes-friendly society
Biological factors
Hemoglobin status
Metabolic health: Blood pressure, weight, lipids, platelet/endothelial health
Concomitant infections/infestations
Endocrine health: Vitamin D, gonadal status, renin-angiotensin system
Pharmacological factors
Drug safety
Drug tolerability
Drug efficacy

Another way to study diabetes through a salutogenic biopsychosocial model is to classify GRD and GRR in biomedical and psychosocial terms. A mirror image viewpoint would be to list various challenges in diabetes management and their solutions in terms of GRD and GRR [Table 2]. The biomedical GRD that one faces, for example, may include overweight/obesity, hypertension, dyslipidemia, platelet dysfunction, microvascular, macrovascular, and acute complications, in addition to dysglycemia. The GRR that one can utilize to tackle these include lifestyle modification and drug therapy. The use of evidence-backed drugs, which have proven cardiovascular safety and benefit, is a means of strengthening GRR.

Psychological GRD such as diabetes distress can be tackled by coping skills training, which is a form of GRR enhancement. Social GRD suggests lack of support from family and community, who may wish to help the person with diabetes but do not know how to do so. Social GRD also includes access to misguided or false information (diabetes e-hearsay) which promotes the use of invalidated interventions and therapies. The GRR that can be brought to bear upon these GRD is family and social support, buttressed by sustained social marketing, advocacy and government involvement.

Targets, techniques, and tools

Yet another framework to integrate salutogenesis in modern diabetes care philosophy is shown in Table 3. This highlights major targets of diabetes management and classifies them as psychological, social, and biomedical. For each target, salutogenic strategies are proposed, and salutogenic tools identified. Such a framework supports a salus-oriented or health-oriented attitude toward life with diabetes and promotes pharmacological intervention as a part of healthy living with diabetes, rather than an unwelcome "burden."

Salutogenic Communication

The salutogenic approach to diabetes offers a positive and proactive method of diabetes management. This should encourage diabetes care professionals to use salutogenic words and phrases in their communication. Such an attitude will help improve acceptance of, adherence to, and persistence with, prescribed therapy. Diabetes care professionals should also identify salutogenic biological and psychosocial aspects and encourage persons with diabetes to strengthen them. Some examples of salutogenic factors are listed in Table 4. Such an approach is in concordance with modern management guidelines.[13]

Summary

Modern diabetes care needs to be provided under a salutogenic umbrella. This salutogenic spectrum should not be limited to psychosocial issues. It should incorporate the biomedical aspect of health as well. Within this domain, salutogenesis should focus on comprehensive metabolic management, as opposed to a glucose-centered therapy.

Diabetes care professionals need to internalize the theory of salutogenesis in their communication and motivation strategies. This concept should be utilized to help improve health care seeking and accepting behavior of persons with diabetes.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Antonovsky A. Health, Stress and Coping. San Francisco: Jossey Bass; 1985.
2. Effect of intensive diabetes management on macrovascular events and risk factors in the Diabetes Control and Complications Trial. Am J Cardiol 1995;75:894-903.
3. Goldner MG, Knatterud GL, Prout TE. Effects of hypoglycemic agents on vascular complications in patients with adult-onset diabetes 3. Clinical implications of UGDP results. JAMA 1971;218:1400-10.
4. Engel GL. The clinical application of the biopsychosocial model. Am J Psychiatry 1980;137:535-44.
5. Kesavadev J, Saboo B, Sadikot S, Das AK, Joshi S, Chawla R, *et al.* Unproven therapies for diabetes and their implications. Adv Ther 2017;34:60-77.
6. Mazzuca SA. Does patient education in chronic disease have therapeutic value? J Chronic Dis 1982;35:521-9.
7. Kalra S, Unnikrishnan AG, Baruah MP. Diabetes therapy by the ear. Indian J Endocrinol Metab 2013;17 Suppl 3:S596-8.
8. Kalra S, Kumar S, Kalra B, Unnikrishnan A, Agrawal N, Sahay R. Patient-provider interaction in diabetes: Minimizing the discomfort of change. Int J Family Pract 2009;8.
9. Kalra S, Unnikrishnan AG, Skovlund SE. Patient empowerment in endocrinology. Indian J Endocrinol Metab 2012;16:1-3.
10. John M, Gopalakrishnan Unnikrishnan A, Kalra S, Nair T.

Cardiovascular outcome trials for anti-diabetes medication: A holy grail of drug development? Indian Heart J 2016;68:564-71.
11. American Diabetes Association. 3. Comprehensive medical evaluation and assessment of comorbidities. Diabetes Care 2017;40 Suppl 1:S25-32.
12. Polonsky WH, Anderson BJ, Lohrer PA, Welch G, Jacobson AM, Aponte JE, *et al.* Assessment of diabetes-related distress. Diabetes Care 1995;18:754-60.
13. Kalra S, Sridhar GR, Balhara YP, Sahay RK, Bantwal G, Baruah MP, *et al.* National recommendations: Psychosocial management of diabetes in India. Indian J Endocrinol Metab 2013;17:376-95.