

# Journal of Health Care and Research

(ISSN: 2582-8967)

DOI: https://doi.org/10.36502/2021/hcr.6195

# Clinical Management for Diabetes Associated with the Concept of Socioeconomic Status (SES)

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Received date: 06 May 2021; Accepted date: 26 June 2021; Published date: 01 July 2021

**Citation:** Bando H. Clinical Management for Diabetes Associated with the Concept of Socioeconomic Status (SES). J Health Care and Research. 2021 Jul 01;2(2):119-21.

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#### Abstract

Diabetes mellitus has become a medical and social problem. For better diabetic management and improvement of the health care system, the concept of social determinants of health (SDOH) and socioeconomic status (SES) would be required. SES includes adequate diabetes care, medical cost, health condition, and regular access to care and cure.

#### Keywords

Diabetes Mellitus, Socioeconomic Status (SES), Social Determinants of Health (SDOH), Bio-Psycho-Social, Health Care System

#### Abbreviations

SES: Socioeconomic Status; SDOH: Social Determinants of Health

World Health Organization (WHO) has continued the prevention and management of diabetes and proposed the Global Diabetes Compact in last 2020 [1]. The purpose of the Compact includes several items, such as i) to leverage present capacities in the healthcare system, ii) to meet people's needs more holistic way, iii) to promote efforts to prevent diabetes especially the young generation, and others. A successful key would be the combined action among public, private, and philanthropic associations.

Diabetes mellitus has been a growing medical and social problem in all countries and districts worldwide [2]. The socio-economic gradient for diabetic prevalence is shown in high-income countries [3]. Further, this gradient seems to be continued for a long despite the improvement of the health care system in those countries [4,5]. In this paper, we describe the social determinants of health (SDOH) and socioeconomic status (SES), among other axes of symmetry for diabetes.

In medical practice and health care, populationbased and value-based care have been emphasized. Then, the concept of social determinants of health (SDOH) has been gradually known for an intervention target for estimating health equity [6]. Recently, some comments for SDOH were proposed from medical associations, such as the Society of General Internal Medicine, the American College of Physicians, and Citation: Bando H. Clinical Management for Diabetes Associated with the Concept of Socioeconomic Status (SES). J Health Care and Research. 2021 Jul 01;2(2):119-21.

#### Mini Review

other organizations [7]. Moreover, the action perspectives tend to focus on the determinants for individuals and policy [8,9].

In diabetic practice, some basic matters exist including prevalence, incidence, adequate therapy, and economic problems [10]. ADA presented a comment about socio-ecological determinants of diabetes. Successively, ADA had an advanced health improvement project for the diabetes writing committee. It has the goal of clarifying diabetic risk and outcomes, academic literature for SDOH [11].

From previous literature, SDOH covers certain areas as follows [6]: i) social context (social support, relationship, and capital, social relationship), ii) health care (quality, accessibility, affordability), iii) local and physical circumstance (residence condition, building environment), iv) food environment (insecurity for food, accessibility for food) and v) socio-economic condition (occupation, education, income). According to academic reports, the health disparities for diabetes have been present in the light of adverse influence [12]. Social and environmental factors have been summarized as SDOH in WHO [13].

Among them, social environments seem to be rather main factors. They include societal and community context [14], social capital, social cohesion, and social elements [15]. Health care has been found as an SDOH in the Healthy People 2020, WHO, County health rankings models, associated with accessible factors. WHO regards the health system as one of the SDOH which can give a message of determinants of several health outcomes [15].

On the other hand, it is socioeconomic status (SES) that may influence all related aspects of diabetic treatment in the clinical practice [16]. Actually, lower SES diabetic cases are likely to have some barriers to adequate diabetes care, including medical cost, unsatisfactory health condition, and regular access to care and cure [17]. SES has revealed the multidimensional construct, associated with the occupational, economic, and educational situation [18]. SES has been related to all factors of SDOH [13]. They include medical care, health care, nutrition, social

resources, housing, transportation, and so on. The factors of SES and diabetes were investigated for observational studies [19]. It included 28 investigations including diabetic complications, retinopathy, cardiopathy, and others.

In summary, SDOH and SES concerning diabetes were introduced. This information will be hopefully useful for developing a bio-psycho-social perspective in clinical practice.

#### **Conflict of Interest**

The author has read and approved the final version of the manuscript. The author has no conflicts of interest to declare.

#### References

 World Health Organization. WHO announces the Global Diabetes Compact. World Health Organization;
2020 Nov 17. Available from:

# https://www.who.int/news/item/17-11-2020-whoannounces-the-global-diabetes-compact

[2] American Diabetes Association. 3. Prevention or Delay of Type 2 Diabetes: Standards of Medical Care in Diabetes-2021. Diabetes Care. 2021 Jan;44(Suppl 1):S34-S39. [PMID: 33298414]

[3] Beeching SA. Quality Improvement Project to Improve Diabetes Self-Management in Low Socioeconomic Status Individuals. The University of Alabama College of Nursing. 2020:1-36.

[4] Jaffiol C, Thomas F, Bean K, Jégo B, Danchin N. Impact of socioeconomic status on diabetes and cardiovascular risk factors: results of a large French survey. Diabetes Metab. 2013 Feb;39(1):56-62. [**PMID**: 23142159]

[5] Grundmann N, Mielck A, Siegel M, Maier W. Area deprivation and the prevalence of type 2 diabetes and obesity: analysis at the municipality level in Germany.BMC Public Health. 2014 Dec 13;14:1264. [PMID: 25495106]

[6] Hill-Briggs F, Adler NE, Berkowitz SA, Chin MH, Gary-Webb TL, Navas-Acien A, Thornton PL, Haire-Joshu D. Social Determinants of Health and Diabetes: A Scientific Review. Diabetes Care. 2020 Nov 2;44(1):258–79. [**PMID**: 33139407]

[7] Byhoff E, Kangovi S, Berkowitz SA, DeCamp M, Dzeng E, Earnest M, Gonzalez CM, Hartigan S, Karani Citation: Bando H. Clinical Management for Diabetes Associated with the Concept of Socioeconomic Status (SES). J Health Care and Research. 2021 Jul 01;2(2):119-21.

#### Mini Review

R, Memari M, Roy B, Schwartz MD, Volerman A, DeSalvo K; Society of General Internal Medicine. A Society of General Internal Medicine Position Statement on the Internists' Role in Social Determinants of Health. J Gen Intern Med. 2020 Sep;35(9):2721-27. [PMID: 32519320]

[8] Peek ME, Vela MB, Chin MH. Practical Lessons for Teaching About Race and Racism: Successfully Leading Free, Frank, and Fearless Discussions. Acad Med. 2020 Dec;95(12S Addressing Harmful Bias and Eliminating Discrimination in Health Professions Learning Environments):S139-44. [PMID: 32889939]

[9] Vela M, Blackman D, Burnet D, Chin M, Cook S, Kim K, Mcdonald E, Miller D, Peek M, Saunders M. Racialized violence and health care's call to action. MedPage Today's KevinMD.com; 2020 Jun 06. Available from:

#### https://www.kevinmd.com/blog/2020/06/racializedviolence-and-health-cares-call-to-action.html

[10] Hill-Briggs F. 2018 Health Care & Education Presidential Address: The American Diabetes Association in the Era of Health Care Transformation. Diabetes Care. 2019 Mar;42(3):352-58. **PMID**: 30787058]

[11] Haire-Joshu D, Hill-Briggs F. The Next Generation of Diabetes Translation: A Path to Health Equity. Annu Rev Public Health. 2019 Apr 1;40:391-10. [PMID: 30601723

[12] Thornton PL, Kumanyika SK, Gregg EW, Araneta MR, Baskin ML, Chin MH, Crespo CJ, de Groot M, Garcia DO, Haire-Joshu D, Heisler M, Hill-Briggs F, Ladapo JA, Lindberg NM, Manson SM, Marrero DG, Peek ME, Shields AE, Tate DF, Mangione CM. New research directions on disparities in obesity and type 2 diabetes. Ann NY Acad Sci. 2020 Feb;1461(1):5-24.

#### [PMID: 31793006]

[13] World Health Organization. Social Determinants of Health. World Health Organization; 2020. Available from:

# https://www.who.int/teams/social-determinants-ofhealth

[14] Artiga S, Hinton E. Beyond health care: the role of social determinants in promoting health and health equity. San Francisco, CA: Henry J. Kaiser Family Foundation; May 2018. Available from:

https://collections.nlm.nih.gov/catalog/nlm:nlmuid-101740257-pdf

[15] Office of Disease Prevention and Health Promotion. Social Determinants of Health. United States: HealthyPeople.gov; 2020. Available from: https://www.healthypeople.gov/2020/topics-

#### objectives/topic/social-determinants-of-health

[16] Heidemann DL, Joseph NA, Kuchipudi A, Perkins DW, Drake S. Racial and Economic Disparities in Diabetes in a Large Primary Care Patient Population. Ethn Dis. 2016 Jan 21;26(1):85-90. [PMID: <u>26843800</u>]

[17] ADA. Standards of Medical Care in Diabetes-2017: Summary of Revisions. Diabetes Care. 2017 Jan;40(Suppl 1):S4-S5. [PMID: 27979887]

[18] Saegert SC, Adler NA, Bullock HE, Cauce AM, Liu WM, Wyche KF. Report of the American Psychological Association Task Force on Socioeconomic Status. Washington, DC: American Psychological Association; 2007. Available from:

### https://www.apa.org/pi/ses/resources/publications/ta sk-force-2006.pdf

[19] Tatulashvili S, Fagherazzi G, Dow C, Cohen R, Fosse S, Bihan H. Socioeconomic inequalities and type 2 diabetes complications: A systematic review. Diabetes Metab. 2020 Apr;46(2):89-99. [PMID: 31759171]

