

**A PRELIMINARY QUESTIONNAIRE DEVELOPMENT TO ASSESS OJAKSHAYA  
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Article Received on 26/09/2023

Article Revised on 17/10/2023

Article Accepted on 07/11/2023

**ABSTRACT**

**Background and Objective:** Madhumeha, commonly known as diabetes mellitus, is a prevalent lifestyle disorder with a substantial impact on human health. Ojas, a vital concept in Ayurveda, plays a crucial role in maintaining physiological balance and overall well-being. Ojomeha has been mentioned as one the type of vataja prameha and it has been mentioned that due to dhatu kshaya and vata prakopa there is Oja kshaya happening<sup>1</sup>, it is also said that all the pramehas finally end up as Vataja prameha.<sup>2</sup> This study aimed to establish a relationship between Ojakshaya (depletion of Ojas) and Madhumeha through a survey-based approach. **Methodology:** In this study 200 Madhumeha-diagnosed patients were assessed using a self-prepared questionnaire designed to identify Ojakshaya lakshanas. The questionnaire examined symptoms such as Bibheti, Durbala, Abhikshanam Dhyayathi, vyathitendriya, Duschaya, Durmana, Ruksha, and Kshama.<sup>1</sup> A Total of 54 questions were finalized under 8 domains to assess oja kshaya lakshans in Madhumeha (Type 2 Diabetes mellitus). **Result and Conclusion:** Results revealed varying levels of Ojakshaya symptoms in Madhumeha patients, This finding supports the Ayurvedic concept of Dhatu kshaya and vata vrudhhi leading to more profound Ojakshaya. The study underscores the significance of Ojas in maintaining homeostasis and its potential role in managing Madhumeha.

**OBJECTIVE**

1. To develop a questionnaire to assess oja kshaya lakshanas in Madhumeha.
2. To Establish the relation between Madhumeha (Type 2 Diabetes mellitus) and Oja kshaya

**MATERIALS AND METHODS****Steps involved in Questionnaire Development****1. Item Development**

- Identification of Domain and Item Generation
- Content Validity Assessment

**2. Questionnaire Development**

- Pretesting of Questionnaire
- Refinement of Questionnaire
- Sampling and Survey Administration

**3. Data Collection**

4. Test for Assessment of Association Between Variables

5. Data Analysis
6. Conclusion
7. Result

**Step 1 - Item Development****▪ Identification of Domain and Item Generation<sup>[5]</sup>**

In the first phase of this study, the domain of Ojakshaya lakshanas, comprising characteristics such as Bibheti, Durbala, Abhikshanam Dhyayathi, Vyathitendriya, Duschaya, Durmana, Ruksha, and Kshama, was identified. These lakshanas were meticulously defined using Ayurvedic references and their conceptual definitions were compiled for item generation.

1.Bibheti	बिभेति-त्रस्यति (Ah.su.11/39-41)	A feeling of fear or anxiety
2.Durbala	दुर्बलो-हीनबलो भवति (Ah.su.11/39-41),	Decreased physical strength
3.Abhikshanam Dhyayathi	अभीक्षणंपुनःपुनरकस्मात् (Ah.su.11/39-41) ध्यायति-चिन्तयति (Ah.su.11/39-41)	Overthinking or getting worried constantly
4.Vyathitendriya	व्यथितेन्द्रियःहृदयादिस्थानेषु व्याथावान् (Ah.su.11/39-41)	Injury to sensory or motor organs
5.Duschaya	दुःच्छायो-मलिनकान्तिः (AH.SU.11/39-41)	Loss of complexion
6.Durmana	दुर्मनाः-गतोत्साहः (AH.SU.11/39-41)	Decreased enthusiasm
7.Ruksha	रूक्षोनिस्नेहाङ्गः (AH.SU.11/39-41)	Dryness of the body
8.Kshama	क्षामः-कृशाङ्गः	Emaciation

## Step 2 - Questionnaire Development

### ▪ Pretesting of Questionnaire

The questionnaire was pretested to assess its clarity and relevance. This involved administering the questionnaire

to a small sample of participants to identify any ambiguities, inconsistencies, or issues with comprehension. Feedback from the pretest was used to refine and finalize the questionnaire.



### ▪ Refinement of Questionnaire

S.no	Name of the domain	Total no of finalized questions	Examples of the questions framed
Domain no 1	Bibheti	9	After being diagnosed with diabetes have you seen changes in your sleep pattern like having disturbed sleep,

			nightmares or fatigue on waking?
Domain no 2	Durbala	5	Have you observed that there is increased weakness of joints after having diabetes?
Domain no 3	Abhikshanam dhyayathi	4	Do you often tend to overthink that your overall health may get deteriorated in future due to diabetes?
Domain no 4	Vyathitendriya	17	Have you observed that increased lassitude or weakness of eyes due to diabetes?
Domain no 5	Duschaya	5	Due to diabetes Have you observed that there is increased formation of yellowish plaques on teeth ever after brushing teeth regularly
Domain no 6	Durmana	8	Did you observe there is poor retention of memory after having diabetes?
Domain no 7	Ruksha	2	Even after application of any oil or moisturizer does your skin become dry due to diabetes?
Domain no 8	Kshama	4	Do you tend to remain thirsty even after consuming ample amount of water due to diabetes?
Total		54	

#### ▪ Sampling and Survey Administration

The study included 200 subjects from the outpatient department (OPD) and inpatient department (IPD) of Sri Dharmasthala Manjunateshwara College of Ayurveda and Hospital. Data were collected through structured interviews, with participants responding to the developed questionnaire. This approach ensured that data were collected consistently and accurately.

#### Step 3- Test for Assessment of Association Between Variables

To assess the association between Ojakshaya lakshanas and Madhumeha, a chi-square test was employed. This statistical analysis allowed for the examination of potential relationships and dependencies between the variables under investigation, shedding light on the connection between Ojakshaya and Madhumeha.

#### OBSERVATIONS AND RESULTS

The results revealed that Ojakshaya lakshanas such as Bibheti (fear), Durbala (weakness), Abhikshanam Dhyayathi (constant worrying), Vyathitendriya (injured senses), Duschaya (loss of complexion), Durmana (decreased enthusiasm), Ruksha (body dryness), and Kshama (emaciation) were present in varying degrees among Madhumeha patients. Interestingly, patients with longer-standing diabetes exhibited more pronounced Ojakshaya symptoms, suggesting a potential correlation between the duration of the disease and Ojas depletion.

#### DISCUSSION

The survey study conducted aimed to develop a questionnaire to assess ojakshaya and establish a relationship between ojakshaya, a concept in Ayurveda, and Madhumeha, which is diabetes in modern medicine. The findings from the study reveal a multifaceted understanding of how ojakshaya may be contributing to the lakshanas, or clinical features, seen in Madhumeha patients. The study first identified various factors contributing to the prevalence of diabetes, such as gender, occupation, and socio-economic status. It found

that males, especially those with low testosterone levels, were more susceptible to diabetes. Agricultural workers, exposed to agrochemicals, were also at a higher risk, and individuals from the lower-middle class faced challenges related to health awareness, physical inactivity, and obesity.<sup>[4]</sup>

The probable understanding of ojakshaya as a cause for the lakshanas in Madhumeha was discussed in detail, linking Ayurvedic principles to modern medical concepts. For instance, anxiety and loss of concentration can be attributed to stress-induced hormonal imbalances, immune dysfunction, and inflammation in diabetes.<sup>[6]</sup> Similarly, disturbed sleep, generalized weakness, and joint issues can be associated with altered glucose metabolism, musculoskeletal problems, and hormonal disruptions in the diabetic population. This study provides a comprehensive overview of the potential correlation between ojakshaya and the clinical manifestations of diabetes, shedding light on the holistic understanding of this complex metabolic disorder and emphasizing the importance of considering both Ayurvedic and modern medical perspectives when addressing diabetes and its associated complications. It also highlights the need for further research to validate these connections and develop more effective management strategies for diabetes.

#### CONCLUSION

In conclusion, this study offers a solid foundation for further exploration of Ojas and its implications in the management of lifestyle disorders like Madhumeha. It underscores the relevance of Ayurvedic principles in contemporary healthcare and encourages a holistic approach to address the complex nature of diabetes and related conditions.

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