

## Effectiveness of a Diabetes Education Program on Improving Self-Care Practices Among Diabetic Patients on Halal Road, Faisalabad, Pakistan

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### Abstract

This study examined the effectiveness of a structured diabetes education program on improving self-care practices among diabetic patients living on Halal Road, Faisalabad. A quasi-experimental pre-post intervention design was employed with 80 diabetic patients selected through purposive sampling. Baseline self-care practices were assessed in domains of diet adherence, physical activity, medication compliance, blood glucose monitoring, and foot care. Following an educational intervention using lectures, posters, and demonstrations, post-intervention assessment revealed statistically significant improvements ( $p < .05$ ) in all domains. Diet adherence improved from 32% to 76%, physical activity from 28% to 70%, medication compliance from 50% to 85%, blood glucose monitoring from 40% to 82%, and foot care from 30% to 74%. The findings suggest that structured education programs are effective, low-cost interventions for improving diabetes self-management and preventing complications.

**Keywords:** Diabetes education, self-care practices, patient education, Pakistan

### Introduction

Diabetes mellitus is a chronic metabolic disorder with increasing prevalence worldwide, particularly in developing countries such as Pakistan. According to the International Diabetes Federation (2021), Pakistan ranks third globally in diabetes burden with approximately 33 million adults living with the condition. Diabetes-related complications such as cardiovascular disease, neuropathy, nephropathy, and retinopathy are strongly associated with poor self-care practices (American Diabetes Association [ADA], 2022). Education programs focusing on diet, medication adherence, glucose monitoring, and lifestyle modifications are proven strategies to improve patient outcomes (Shrivastava, Shrivastava, & Ramasamy, 2013). However, in semi-urban areas like Faisalabad, patients often lack access to structured diabetes education. This study was designed to evaluate the effectiveness of a structured diabetes education program on improving self-care practices among diabetic patients on Halal Road, Faisalabad.

### Methodology

A quasi-experimental pre-post intervention study was conducted among 80 diabetic patients living on Halal Road, Faisalabad. Inclusion criteria included adults aged 30 years and above with a confirmed diagnosis of type 2 diabetes mellitus for at least one year. Exclusion criteria included patients with severe complications or cognitive impairment. Purposive sampling was used to recruit participants.

### Data Collection:

Baseline self-care practices were assessed using a structured checklist covering five domains:

- Diet adherence
- Physical activity
- Medication compliance
- Blood glucose monitoring
- Foot care

A two-day diabetes education session was conducted using interactive lectures, posters, group discussions, and demonstrations.

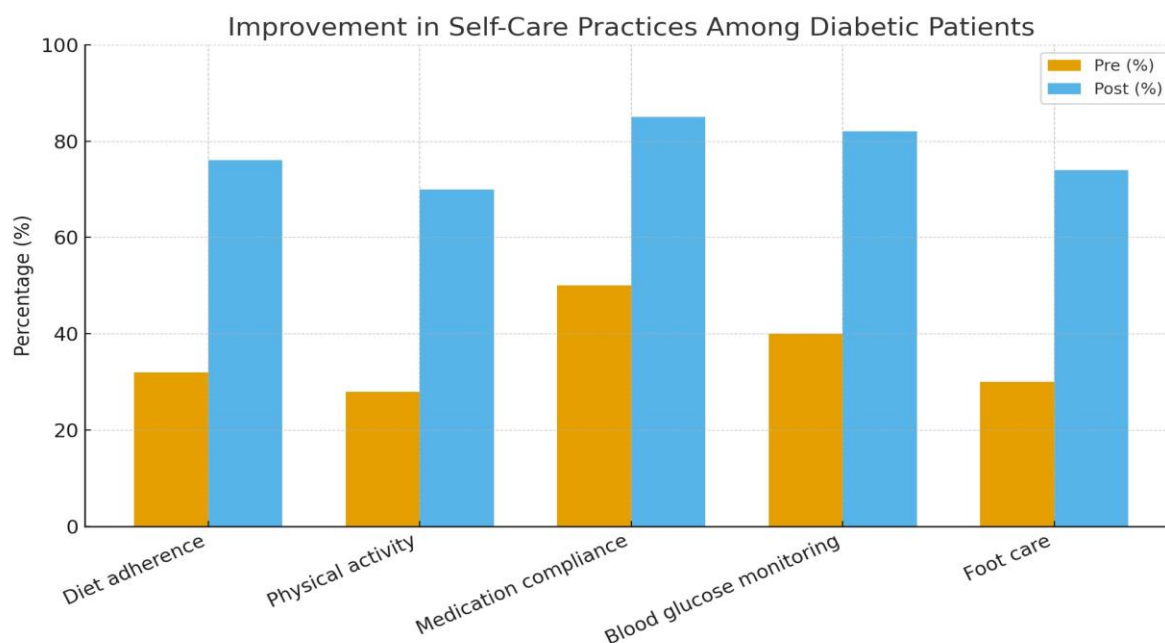
### Data Analysis:

Pre-and post-intervention scores were analyzed using paired t-tests through SPSS v25. Validity was ensured by expert review and pilot testing. Ethical approval was obtained from the institutional review board, and informed consent was taken from participants.

### Results

Demographic characteristics: Most participants (60%) were female, aged between 40–65 years, with low to middle socioeconomic background.

| Self-Care Practice       | Pre (%) | Post (%) |
|--------------------------|---------|----------|
| Diet adherence           | 32      | 76       |
| Physical activity        | 28      | 70       |
| Medication compliance    | 50      | 85       |
| Blood glucose monitoring | 40      | 82       |
| Foot care                | 30      | 74       |



### Discussion

The study demonstrates that structured diabetes education significantly improves self-care practices among diabetic patients. The post-intervention improvements in diet adherence, physical activity, medication compliance, glucose monitoring, and foot care are consistent with findings reported in other settings (Murugesan et al., 2007; Norris et al., 2002). The effectiveness of the program can be attributed to the culturally relevant materials, interactive sessions, and practical demonstrations which enhanced patient engagement and retention. Limitations of this study include a relatively small sample size, short follow-up duration, and reliance on self-reported practices. Future research should focus on long-term follow-up and inclusion of biochemical outcomes such as HbA1c levels.

### Conclusion

The structured diabetes education program significantly improved self-care practices among diabetic patients living on Halal Road, Faisalabad. Such interventions should be integrated into primary healthcare services to reduce the burden of diabetes complications in Pakistan.

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