FROM WORKFORCE READINESS TO IMPLEMENTATION: DEVELOPING A NURSE-LED DIABETES CARE MODEL IN A LOWER-MIDDLE-INCOME COUNTRY

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Background
The global burden of diabetes continues to increase, particularly in lower-middle-income countries, where limited specialist healthcare workforce capacity and inadequate diabetes training challenge the delivery of high-quality diabetes care. In Pakistan, structured preparation of nurses for advanced diabetes care remains limited despite nurses constituting the largest healthcare workforce. Strengthening nurses' knowledge, confidence and readiness for expanded clinical roles is essential for developing sustainable nurse-led models of diabetes care.

Aim
To assess graduate nurses' knowledge, awareness and readiness for expanded roles in diabetes care across Pakistan and translate the findings into a structured nurse-led educational model.

Method
A national cross-sectional online survey was conducted between June and August 2025 involving 1,220 graduate nurses (1%) from 68 cities across Pakistan. Participants were recruited through professional nursing networks and digital platforms. A structured validated questionnaire assessed diabetes knowledge, confidence in clinical decision-making, professional development needs and perceptions regarding expanded nursing roles. Data were analyzed using descriptive and comparative statistical methods.

Results
The survey identified substantial enthusiasm for strengthening diabetes nursing despite important educational gaps. 69% participants reported difficulty keeping up to date with current diabetes management guidelines, while 88% strongly supported regular diabetes-specific professional education. Although 78% indicated that diabetes education was prioritized within their workplace, respondents identified limited opportunities for structured competency development. Furthermore, 84% recognized sustained patient motivation as fundamental to successful diabetes self-management. These findings demonstrated a clear national demand for structured, competency-based diabetes education and highlighted the need to prepare nurses for advanced clinical practice. The findings directly informed the successful implementation of Pakistan's first Nurse-Led Diabetes Care Course.

Conclusion

This study demonstrates a successful translational pathway from national workforce assessment to educational innovation and implementation. The resulting nurse-led education model provided a scalable framework for strengthening diabetes nursing capacity and supporting the development of advanced nursing practice in resource-constrained settings. It also demonstrated how international investment in nursing education can catalyze sustainable workforce development, educational innovation and improved diabetes care, with potential relevance for other lower-middle-income countries.

Keywords: Diabetes Care; Diabetes Nursing; Nurse-Led Care; Advanced Practice Nursing; Workforce Development; Professional Education; Lower-Middle-Income Countries