

## Nurses knowledge of blood glucose levels and the management of hypo and hyper glycaemia: A descriptive study

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**D**iabetes mellitus is a chronic, systemic disease in which the body produces very little or no insulin, or is unable to use insulin resulting in high levels of glucose in the blood<sup>(1)</sup>. In Australia, diabetes has been among the leading causes of mortality, morbidity and disability, and was the 6<sup>th</sup> leading cause of death in 2014<sup>(2)</sup>. Research has shown that patient education is vital for diabetes control and management. However, research has shown that nurses' (who are at the forefront of care) knowledge of diabetes is variable and not sufficient in the researched populations<sup>(3-5)</sup>.

The study aimed to identify the current state of knowledge of diabetes among nursing staff in South Australia using a cross sectional design involving a check list to guide structured observation of blood glucose monitoring procedures followed by a structured questionnaire to gather information on the knowledge level of nurses in relation to blood glucose levels. The study was conducted in one service unit of a public, teaching hospital in South Australia. A convenience sample of nurses who were directly involved in the provision of care for diabetic patients were recruited for the study. Approval for the study was gained from the hospital's Research Ethics Committee. The observation checklist and the survey questionnaire were scored by hand and entered into SPSS and reviewed for data entry accuracy. Descriptive statistics were used to summarize the data. Non-parametric statistics were used to compare the knowledge scores between the mentioned groups since the data were not normally distributed. Pearson product-moment coefficient was used to describe the strength and direction of correlation between selected variables. Twenty nurses completed the questionnaire and 32 nurses were observed during their practice. The results of this study showed that the demographic data were not correlated with higher knowledge scores or higher observation scores. Therefore, the demographic characteristics investigated in this study were not significantly associated with knowledge or practice. The average score obtained from this study was comparatively higher than that of other studies which explored nurses' knowledge of diabetes. This may be because participation in the study was voluntary and this self-selection for participation may have positively skewed the results. The areas of knowledge were found to be highly variable with no clear pattern to correct or incorrect responses across the techniques and safe parameters for blood glucose management. It is recommended that this study be replicated in other units of the hospital to see whether the same results could be achieved.

### Biography:

Nasreena was born in the Maldives and started her nursing career more than 20 years ago with a diploma of nursing from Baqai University, Pakistan. Since then she has obtained a Bachelors, Masters and Doctorate from three Australian universities and is currently a practicing registered nurse in Australia as well as a full time lecturer. Her clinical experience is mainly on medical nursing and she has been the head of an acute medical unit before transferring to academia. Her research interests range from Primary Health Care to Oncology Nursing and Nursing Education. She supervises postgraduate students from Charles Darwin University as well as Villa College in the Maldives.