The Involvement, Confidence and Competence of Veterinary Nurses in the Care of Diabetic Patients in New Zealand.

Abigail Page and Robyn Gear
Private Bag 92025, Victoria St West, Auckland 1125, New Zealand

Author correspondence: rgear@unitec.ac.nz

Introduction

Diabetes Mellitus is an important endocrine disease diagnosed in cats and dogs (Heeley et al, 2020). Guptill et al (2003) reported an increased prevalence of diabetes mellitus over time in the USA. This study also showed a decreased fatality over time, which suggests these patients are treated and therefore, more veterinary hours will be required to manage and support these patients. Traditionally this support has been provided by the veterinarian. However, in human medicine, nurses provide this support for patients (Arts, 2012). The veterinary industry is currently experiencing significant shortages and therefore this is an opportunity for veterinary nurses to take on more responsibility of these cases. This study was designed to assess veterinary nurses' confidence to provide care for diabetic patients, competence to do so and their current involvement and desire for involvement with diabetic patients.

Method

A twenty-five question "google forms" survey was distributed via the New Zealand Veterinary Nurses Association and was available for one week. The survey was self- selecting and anonymous. A mixture of multiple-choice questions, multi-select and likert scale responses were used. The survey gathered data on demographics, the respondents' practice, experience and qualifications. The respondents' current diabetic case involvement and desire to be involved. One likert question asked the respondents to self identify their level of diabetes knowledge. This was followed by ten clinical questions to assess the respondents' diabetes mellitus knowledge. Participants were asked not to research answers online but this was not monitored.
Ethics approval was obtained prior to distribution of the survey.
The data was analysed descriptively.

Results

Forty-six veterinary nurses completed the questionnaire. The vast majority (44) of participants were female. Twenty-seven held diplomas, 13 certificates and 5 a bachelor's degree. Twenty-five worked in small animal practice, 16 in mixed practice, 3 in emergency practice and 2 in a small animal specialist clinic. Forty-one respondents saw more than one diabetic patient each month. Forty-two were involved with blood sampling patients. Five veterinary nurses were involved in diabetic consultations (*Figure 1*). Twenty-seven wanted to be involved with consultations and 17 were neutral in their desire to be involved *(Figure 2*). Twenty respondents were confident in their knowledge, 14 were not confident (*Figure 3).*

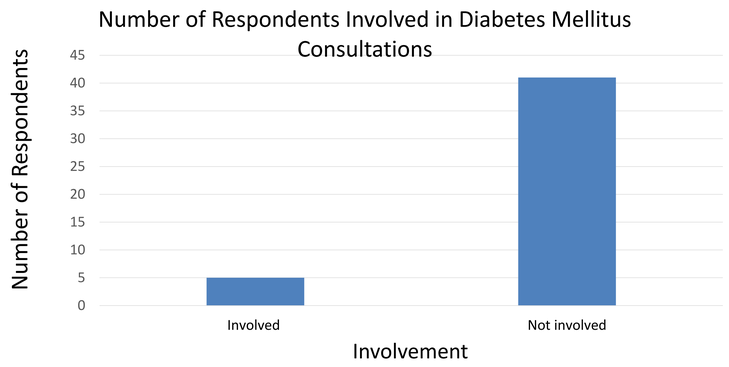

***Figure 1**. Number of Respondents involved in Diabetes Mellitus Consultations*

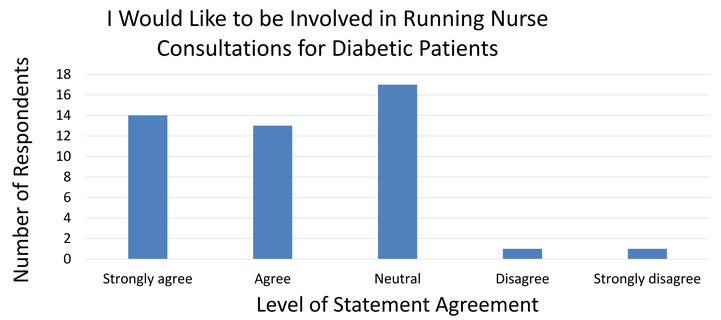

***Figure 2**. Level of Agreement to the question on Involvement in Veterinary Nurses Consultations for Diabetic Patients*

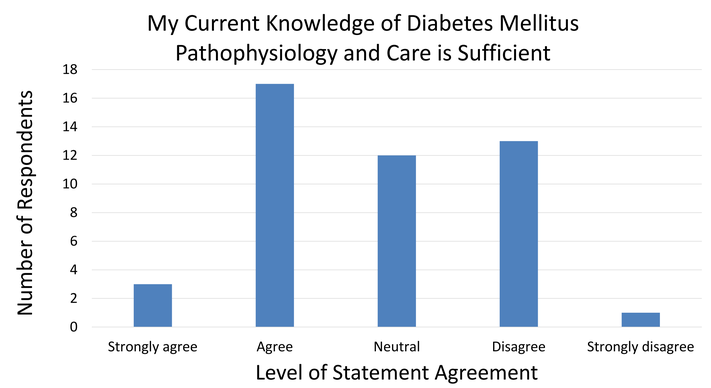

***Figure 3**. Level of Agreement to the question on current knowledge of Diabetes Mellitus*

Six participants answered a clinical signs question correctly, while 35 were partially correct. Thirty-nine answered a nursing consideration question correctly. Forty identified collapse and weakness as clinical signs of hypoglycaemia and twenty-five participants identified twitching as a sign of hypoglycaemia.

Discussion and Conclusion

In this study the majority of respondents had a desire to be involved with diabetes mellitus consultations in contrast with the minority who were currently involved. Therefore, this identifies an opportunity for nurses to be utilised more and to have more responsibility which in turn could improve job satisfaction and retention of veterinary nurses if resources to support this are sufficient (Kimber & Gardner, 2016). This strategy could also help improve efficiency within the veterinary team, addressing issues of veterinary shortages (Wild, 2017).

The majority of respondents identified their knowledge as sufficient, many were neutral and some identified as having insufficient knowledge. Therefore, further training and support would be beneficial to ensure nurses are confident when providing this service.

Although the majority of clinical questions were answered correctly there were important questions about recognising hypoglycaemia, that were not. Hypoglycaemia is a life-threatening complication of insulin overdose that is essential to recognise (Rees, 2019). Therefore, specific diabetes mellitus education prior to offering veterinary nurse consultations would be important to maintain a good standard of care for the patients (Wild, 2017).

The major limitation of this study was the small sample size.

In conclusion, this study has found there is a desire for nurses to be involved in diabetes mellitus consultations but further continuing education would be beneficial to improve confidence and competence of staff providing this service.

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