Newton, Veronica

Concept Analysis of Limited Joint Mobility in the foot

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**Limited Joint mobility** (LJM) is one of the earliest clinically apparent long term complications of Type 1 Diabetes – Lindsay (2005).

A **concept analysis** approach was used to review available literature focusing on LJM in the foot. Clinical features of LJM were explored and the potential consequences to tissue changes appraised, to provide a clearer exposition of this condition and the factors underlying it. This work has application to a wide community of practitioners to illustrate the presence of LJM and the potential effects on joint function which may lead to ulceration of the Diabetic foot.

**Research Design and Method**

Concept analysis is a method of research which contributes to a body of knowledge or developing theory about specific concepts or phenomenon Walker and Avants (2005)

Three Broad goals

- **Analysis** - dissect out relevant literature
- **Synthesis** - combine the seemingly isolated components together
- **Derivation** - employ analogy/develop theory to make sense of the evidence

This concept analysis has identified literature on LJM falls into three domains:

1) Structural effects
2) Functional effects
3) Tissue properties

**Conclusions**

The empirical referents within a concept analysis framework are measures of the defining attributes. This concept analysis has developed a theoretical framework of three domains to facilitate understanding of LJM in the foot.

**Foot Function models** can examine the biomechanical paradigms underpinning range of motion at joints

**Structural** models to measure the behaviour of soft tissues in weight bearing and non weight bearing states.

**Tissue properties** of LJM will be investigated given the association of connective tissues changes affected by glycosylation in patients with diabetes.

**References**

Lindsay, J.R. et al Reduced prevalence of Limited Joint Mobility in Type 1 Diabetes in a UK Clinic Population over a 20 year period Diabetes Care 28: 658-661,2005.

