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Concept Analysis of Limited Joint Mobility in the foot

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**Background**

**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

**Results**

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.

