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Measuring trust in nurses – Psychometric properties of the Trust in Nurses Scale in four countries

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ABSTRACT

Purpose: The purpose of this study was to examine psychometric properties of three translated versions of the Trust in Nurses Scale (TNS) and cancer patients' perceptions of trust in nurses in a sample of cancer patients from four European countries.

Methods: A cross-sectional, cross-cultural, multi-site survey design was used. The data were collected with the Trust in Nurses Scale from patients with different types of malignancies in 17 units within five clinical sites (n = 599) between 09/2012 and 06/2014. Data were analyzed using descriptive and inferential statistics, multivariate methods and psychometrics using exploratory factor analysis, Cronbach's alpha coefficients, item analysis and Rasch analysis.

Results: The psychometric properties of the data were consistent in all countries. Within the exploratory factor analysis the principal component analysis supported the one component structure (unidimensionality) of the TNS. The internal consistency reliability was acceptable. The Rasch analysis supported the unidimensionality of the TNS cross-culturally. All items of the TNS demonstrated acceptable goodness-of-fit to the Rasch model. Cancer patients trusted nurses to a great extent although between-country differences were found.

Conclusions: The Trust in Nurses Scale proved to be a valid and reliable tool for measuring patients' trust in nurses in oncological settings in international contexts.

1. Introduction

Trust in health care is currently high on the policy agenda (European Commission, 2012; WHO, 2005), primarily because it is claimed that, for a number of reasons, public trust in health institutions and in providers is under threat (Rowe and Calnan, 2006). This importance is reflected in recent publications that consider trust a predicting factor in healthcare service use (Zarei et al., 2015), part of service user evaluation of healthcare (Brennan et al., 2013) and a consequence of the patient-care provider relationship (Dinc and Gastman, 2013).

The concept of trust has been reported as an intrapersonal attribute within therapeutic relationships which partially defines the quality of inter-professional relationships (Hupcey et al., 2001). The majority of previous studies about trust have focussed on trust between patients and individual professionals (Brennan et al.,

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2013). Trust evolves in a process where it is strengthened or diminished over time, demonstrating the relational aspects of the concept (Dinc and Gastman, 2013). The concept of trust has been associated with: situations of uncertainty and risk (Hupcey et al., 2001); dependency relationships between experts and non-experts and expectations about future behaviour or interaction (Brennan et al., 2013). Within current literature there is a lack of international comparative studies using psychometrically sound instruments. As the systems and cultures are different in countries, differences between countries in trust are expected. The measurement of trust with a valid and reliable instrument is important as trust is at the very core of nurse-patient relationships. In this study, in addition to classical test theory, item response theory was applied using Rasch analysis. This current study reduces that gap in the literature by using the Trust in Nurses Scale (Radwin et al., 2005b; Radwin & Cabral, 2010) to measure the trust between nurse and patient from the patient's perspective. The study also provides a psychometric assessment of the scale in four different languages.

Trust may be viewed as institutional or interpersonal (Weaver, 2006). Institutional trust occurs between people and an organisation, such as a hospital or a group of nurses. Interpersonal trust is trust between two individuals (Carter, 2009). Trust cannot be demanded from others (Baier, 1986) and must be earned (Carter, 2009). The focus of this current study is concerned with the interpersonal trust between nurses and their patients.

Definitions of interpersonal trust vary to some extent but all indicate a reliance or acceptance of the person being trusted. Baier (1986) defined trust as.

> "reliance on others' competence and willingness to look after, rather than harm, things one cares about which are entrusted to their care" (Baier, 1986 p259).

Similarly Bell and Duffy (2009), discuss trust as an acceptance of the situation led by the trustee

> "the optimistic acceptance of a vulnerable situation, following careful assessment, in which the truster believes that the trustee has his best interests as paramount" (Bell and Duffy, 2009, p50).

Sellman (2007) moved this trust relationship towards a social contract incorporating good will, vulnerability, familiarity and expectations of future behaviour (Sellman 2007, p29-31] and Radwin and Alster (1999) conceptualized trust as an outcome of patient-centered care, defining it as

> "the confidence that care would be appropriate, reliable and as successful as possible" (Radwin and Alster, 1999, p332).

This last definition relates the interpersonal trust to nurses' professional activity. de Raeve (2002) supports this definition within the nurse patient relationship reporting that trust is demonstrated where the patient is confident in and can rely upon the nurses' care.

Trust is also contextual and certain situations, for example life threatening situations, require more trust than others (Sellman, 2007). Additionally, the level of trust afforded a nurse is influenced by patients evaluations of previous personal experiences of the nurse or hospital and which in turn influences their trust expectations from the nurse (Sellman, 2007). It follows that there are antecedent facilitating factors that influence the development of trust.

Facilitating antecedent factors that influence trust in nurses have been described from both the patients' and nurses' perspectives. These patient orientated antecedents include nursing activities, such as time in the nurse-patient relationship (Eriksson and Nilsson, 2008; Wadell and Skärsäter, 2007). During this time nurses earn trust which is demonstrated by the patients' sense of rapport, responsiveness and proficiency (Belcher and Jones, 2009; Radwin, 2000; Radwin et al., 2009). Trust is increased: by keeping confidences (Belcher and Jones, 2009; Radwin et al., 2009; Shepherd, 2011); through demonstrating an awareness of patients' unvoiced needs and an understanding of their suffering (Mok and Chiu, 2004); by demonstrating care and tolerance (Hem et al., 2008); by displaying a genuine and respectful attitude (Shepherd, 2011) and providing good advice, reassurance and encouragement (Liu et al., 2006).

When patients trust a nurse they feel: emotionally and physically safe (Langley and Klopper, 2005); at home and valued as an individual and adequately informed (Benkert and Tate, 2008) and in respectful communication (Belcher and Jones, 2009; Eriksson and Nilsson, 2008). Other factors in the development of trust include perceived nurse characteristics, such as being: honest (Goldberg, 2008); committed to providing the best possible care (Belcher and Jones, 2009); sensitive, showing humility and the ability to see the whole situation (Eriksson and Nilsson, 2008) and being available and accessible. From the nurses' perspective, trust has positive associations with: organisational citizenship behaviours and organisational commitment (Altuntas and Baykal, 2010); workplace empowerment (Laschinger et al., 2002) and job satisfaction (Laschinger and Finegan, 2005). In nursing practice the consequences of trust are reported to be patient self-fulfilment and a positive relationship between nurse and patient (Bell and Duffy, 2009).

There is also literature about factors that hinder the development of the trust which include: nurses' lack of knowledge and skill to carry out nursing care procedures (Belcher and Jones, 2009; Hem et al., 2008; Mok and Chiu, 2004; Radwin et al., 2009; Shepherd, 2011); nurses' use of medically oriented terminology preventing effective communication between patient and nurse (Belcher and Jones, 2009) and occasions when nurses' neglect responsibilities and remain distant (Hem et al., 2008). A consequence of a lack of trust leads to increased vigilance by patients who are looking for opportunities to confirm or deny their level of trust in nurses (Bell and Duffy, 2009). In this way loss of trust could lead to poorer relationships in a vicious circle.

To summarize, trust in nurses seems to be a powerful tool closely associated with relationships between patients and nurses, which may be used in nursing practice to improve patient outcomes during a nursing care episode. However, more extensive quantitative studies of trust are warranted. In this current study, trust in nurses is seen as a process that develops during the interaction between the patient and professional nurse and is important especially to cancer patients who may have many different modes of treatment and care and may involve many nurses over a long period of time. However, differences in healthcare systems may also provide reasons for differences between patients' perceptions of care determinants (Suhonen et al., 2009) such as trust in nurses.

This study is belongs to the "ICP – International Cancer Patient Study" (Charalambous et al., 2016; ICProject International Cancer Patient Study, 2011–2013). The purpose of this study was to examine psychometric properties of three translated versions of the Trust in Nurses Scale (TNS) and cancer patients' perceptions of