



# What predicts patient safety outcomes for nurses? The role of individual differences and the clinical work environment

Gemma Louch<sup>1</sup>, Jane Ward<sup>2</sup>, Peter Gardner<sup>1</sup>, Daryl O'Connor<sup>1</sup>

<sup>1</sup>University of Leeds, <sup>2</sup>Bradford Institute for Health Research

## Systematic Review 1950-2011

**Background:** The evidence in support of the relationships between the nursing work environment and patient safety outcomes (PSOs) often appears to be inconsistent. In addition, little is known about the role individual differences play in relation to PSOs

**Aim:** To collect, critically appraise and synthesise the relevant primary research which has examined the relationships between the nursing work environment, individual differences and PSOs

**Methods:** Electronic databases / hand searching / reference lists

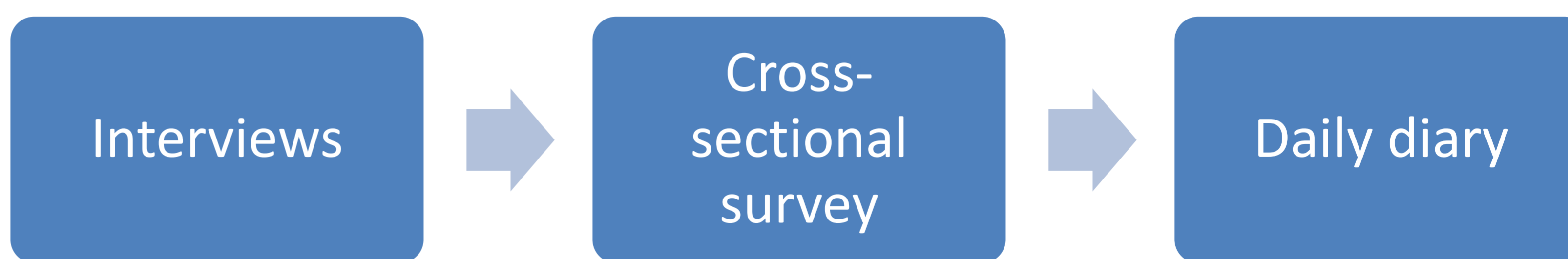
**Search results:** 20,408 identified articles, 94 articles included

### Findings:

- Evidence suggests that factors within the nursing work environment, such as nursing provision, job characteristics and local conditions have a substantial influence on patient safety
- Limited research has explored the influence of individual differences in relation to PSOs. However, the limited research which has been carried out does suggest that individual differences can impact on patient safety

## Filling in the gaps

To address the gaps in the literature, multiple methods will be used to examine the relationships between the nursing work environment, individual differences and patient safety



## Study 1: Interviews (Data collection completed January 2012)

**Aim:** Identify patient safety incident (PSI) contributory factors from a practitioner perspective in a hospital setting

**Methods:** Interviewed 9 nurses, 2 midwives and 2 Operating Department Practitioners (ODPs) from hospital wards within an NHS Trust

**Findings:** Salient work environment contributory factors were identified, and the importance of individual differences was recognised

\* The findings informed the survey by highlighting the important factors to be examined

## Study 2: Survey (Data collection in progress, expected completion August 2012)

**Aim:** To examine the relationships between the nursing work environment, individual differences and PSOs in a hospital setting across three NHS Trusts

**Measures:**

Work environment: e.g. staffing; work hours; communication; job characteristics

Individual differences: e.g. personality; cognitive failures; chronic stress

Patient safety: PSIs over previous 12 months; perceptions of patient safety

\* It is anticipated that relationships will be established between the work environment and PSOs, with individual differences acting as potential moderators or mediators of these relationships

## Study 3: Daily diary (Data collection February-May 2013)

**Aim:** Examine individual-level relationships between the work environment, individual differences and PSOs

**Methods:** Online end of shift diaries, potentially over a 4 shift period

**Data analysis using multi-level modelling**

Level 1: Within-subject daily variations (e.g. workload; job support; mood; staffing; teamwork; communication; PSOs)

Level 2: Between-subject variables (e.g. personality; cognitive failures; education; experience; chronic stress)

Level 3: Between-group variables (e.g. team; ward; hospital; NHS Trust)

\* This will allow the comparison of relationships illustrated at between and within subjects levels

For more information please contact:

Gemma Louch, Institute of Psychological Sciences, University of Leeds, Leeds, LS2 9JT

Tel: 0113 3439191 • email: ps06gl@leeds.ac.uk