Associations between person-centred care and job strain, stress of conscience, and intent to leave among hospital personnel

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Abstract
Aim: To determine the associations between person-centred care (PCC) and job strain, stress of conscience and intent to leave among healthcare professionals in Swedish hospital departments.

Background: Hospitals have experienced difficulty in retaining qualified healthcare personnel. Previous studies have shown that working in a person-centred environment could offset this challenge, but research is scarce.

Design: A cross-sectional survey design using the STROBE checklist.

Methods: Healthcare professionals (n = 94) in six hospital departments in Sweden completed a survey measuring perceived PCC, job strain, stress of conscience and intent to leave. Data were collected from April 2019 to April 2020. Bivariate analysis was used to describe the sample and correlations between the explanatory variables and perceived PCC and its subscales. Regression analyses were performed to explore the associations between perceived PCC and job strain, stress of conscience and intent to leave.

Results: The organisational and environmental support subscale of perceived PCC showed significant correlations with all explanatory variables, while the extent of personalising care subscale only correlated with job strain and intent to leave. The regression analyses showed that higher perceived PCC was associated with higher job strain, less stress of conscience and less intent to leave.

Conclusion: Higher perceived PCC is associated with work-related factors in hospital departments. There is scope for further research in this area.

KEYWORDS healthcare professionals, hospital departments, intent to leave, job strain, nurses, patient-centred care, person-centred care, stress of conscience
Person-Centred Care (PCC) has become an increasingly discussed concept in healthcare systems during recent decades, not least after the World Health Organization (2015) presented a report on people-centred and integrated health services. PCC has been adopted as a desirable model of care by healthcare professionals, patient organisations and policymakers to optimise cost containment and quality of care (Ekman et al., 2016). In this approach to care, relationships are formed and fostered between healthcare professionals, care providers and patients (often with relatives) and supported by values of respect for the person, the right to self-determination, mutual respect and understanding (McCance et al., 2011). The core PCC components are the inclusion of patients’ narratives, the co-creation of a health plan, and monitoring of the health plan (Britten et al., 2020; Coulter et al., 2015). A PCC approach increases both the responsibility of the patients for their care and treatment, and their self-efficacy (Fors et al., 2015; Olsson et al., 2014; Pirhonen et al., 2017).

PCC has been presented as a care model that improves healthcare professional outcomes (van Diepen et al., 2020). Three such outcomes are particularly relevant in this situation: job strain, stress of conscience and intent to leave. Job strain is defined as a combination of high demands and low control in the work environment (Karasek & Theorell, 1990), which can be a major factor in the work of healthcare professionals (e.g. Edvardsson et al., 2014; Vassbø et al., 2019). Stress of conscience occurs when healthcare professionals feel unable to provide the quality of care they think is required (Glasberg et al., 2006). Intent to leave refers to the intention of leaving one’s current job within a limited period and is associated with work environmental factors (Liu et al., 2018). All three of these outcomes may be influenced by the use of PCC. A person-centred work environment gives healthcare professionals more control over their work, which reduces job strain, and allows them to provide care that is more in line with the patients’ needs, which is related to decreased stress of conscience (Sjögren et al., 2015; Vassbø et al., 2019). Finally, experiencing more PCC in the workplace has been shown to decrease staff turnover (Rajamohan et al., 2019).

However, organisational changes in care can be stress-inducing (Edwards et al., 2003; Lourida et al., 2017). The time and resources required for these changes are considered common barriers for healthcare professionals to work in a person-centred manner (Moore et al., 2017; Oxelmark et al., 2018). High workloads and time constraints cause job strain and feelings of not providing the best care (Glasberg, 2008; Sjögren et al., 2015). The experience of high workload can cause people to look for other employment, but working within a PCC approach might mitigate this tendency (Willemse et al., 2014).

### 1.1 Background

Most research regarding the influence of PCC on healthcare professionals has been performed in elderly care and nursing homes, with less focus on healthcare professionals in hospitals. It is essential to study these associations more thoroughly, as hospitals experience difficulty attracting and retaining staff (Aiken & Fagin, 2018). A shortage of qualified staff negatively affects patients’ quality of care and safety (Aiken et al., 2017; Ball et al., 2018; Copanitsanou et al., 2017). The traditional work environment often suffers under ethical conflicts and lack of support and control in everyday tasks (Aiken et al., 2013; Bégat et al., 2005; Copanitsanou et al., 2017), which could be abated by working in a person-centred manner. Not all issues can be addressed by implementing more PCC, but this approach to care might help solve some of them.

Hospitals function differently from elderly or residential care, as the patients are there for shorter periods. Studies of PCC in hospitals have mainly focused on the patients and have shown fewer readmissions and shorter hospital stays (Ekman et al., 2012; Olsson et al., 2014, 2016). These improvements indirectly affect healthcare professionals’ work environment, and so should be associated with work-related health outcomes. This study adapted a PCC measure created for elderly care to fit a hospital care setting and aimed to establish how this measure fits with the healthcare professional outcomes of job strain, stress of conscience and intent to leave. More insight is needed into whether working in a person-centred manner can influence the attraction and retention of qualified hospital staff.

Although PCC should theoretically improve healthcare professional outcomes, the empirical evidence is still unclear. Multiple studies have shown a non-significant effect of PCC on healthcare professionals in mostly elderly and residential care (Nocon et al., 2019; Schaap et al., 2019; Vassbø et al., 2020). A pilot study was therefore created to research the feasibility of PCC for the improvement of healthcare professional outcomes in hospitals, the initial cross-sectional results of which are presented here. This cross-sectional pilot study paves the way for more extended studies and presents pressure points for conducting more research in this area.

### 1.2 Aims

This study aimed to determine the associations between perceived PCC and job strain, stress of conscience and intent to leave among healthcare personnel in Swedish hospital departments.
2 | METHODS

2.1 | Design

This study is part of a quasi-experimental pilot study on the implementation of PCC in six hospital departments and its effects on work-related health of healthcare professionals. Cross-sectional data were drawn from the quasi-experimental study, which collected data in an open cohort on three occasions. The present study used the data from unique participants at each time point to examine associations between perceived PCC and the healthcare professional outcomes. The study was conducted and reported according to the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) checklist (Appendix 1).

2.2 | Context and participants

Recruitment of the hospital departments for the project took place in autumn 2018. Six hospital departments met the following inclusion criteria: the hospital departments were in contact with a PCC change leader, participated in PCC workshops organised by the region, made plans to implement PCC within the next year, and showed willingness to participate in this project.

Each department had between 14 and 57 staff members, such as physicians, specialised nurses, registered nurses (RNs), nurse assistants, managers and medical laboratory personnel. The staff members were predominately female, and 81%–88% of them in each department were RNs or nurse assistants.

2.3 | Data collection

All staff in the six departments were considered eligible to participate in the project. The survey was conducted from April 2019 until April 2020. The total response rate was 132 filled-in questionnaires, which corresponds to an average response rate of 23.8%. The low response rate inspired an initial cross-sectional study including only participants responding to the questionnaire for the first time at each time point, in order to provide an overview of the associations between PCC and the work-related health of healthcare professionals.

FIGURE 1  Flow diagram of participant inclusion

Data were collected using a standardised online self-report questionnaire in Swedish by sending a link to the questionnaire to the work email addresses of healthcare staff in the participating departments. All the participants were given a unique online ID, could respond each time and could withdraw from the study at any time. The online survey programme collated the self-reported data and removed the identification of each entry for anonymous data processing. Due to a low response rate, the three collection points’ responses were combined to increase the number of entries for analysis. As participants could respond on all three occasions, the second and third questionnaires had the additional question: ‘Have you answered this questionnaire before?’ The entries with a positive response to this question were eliminated in the present study to create a sample of unique participants. This exclusion criteria of only using unique participants resulted in the elimination of 22 entries. Furthermore, only the participants who answered all items concerning the outcome variable (perceived PCC) were eligible for the analysis, resulting in 94 participants being analysed in this cross-sectional study. A flow diagram of inclusion is given in Figure 1.

2.4 | Instruments

2.4.1 | Perceived Person-Centred Care

The Person-Centred Care Assessment Tool (P-CAT) created by Edvardsson et al. (2010) was used to measure perceived PCC. This tool comprises 13 items formulated as statements aimed at capturing the extent to which staff perceive PCC practices to be representative of their care processes (Edvardsson et al., 2010), and has shown satisfactory validity and reliability in a Swedish elderly care context (Sjögren et al., 2012). The P-CAT consists of two subscales: extent of personalising care (EPC; 8 items) and organisational and environmental support (OES; 5 items; Edvardsson et al., 2010; Sjögren et al., 2012).

A 5-point scale from 1 (completely disagree) to 5 (strongly agree) was used for evaluation purposes. The sum score could range from 13 to 65, with a high score indicating a greater extent of perceived PCC. The P-CAT scores represented the perceived level of PCC of each healthcare professional and could therefore vary between individuals and within departments.
We adjusted three P-CAT statements for this study to fit a well-defined characterisation of PCC and a hospital environment. The original versions of these statements were: ‘Residents are offered the opportunity to be involved in individualised everyday activities’ (EPC), ‘Residents are able to access outside space as they wish’ (EPC), and ‘It is hard for residents in the facility to find their way around’ (OES). These statements were replaced with: ‘We listen to the patient’s story’ (EPC), ‘We write a care plan together with the patient’ (EPC), and ‘We let the patient take part of the documentation from their medical record’ (OES), based on the core components of PCC (Britten et al., 2016). As the P-CAT was adapted, we performed a factor analysis to determine if the adapted statements fitted in the P-CAT in the subscale we intended. The results were satisfactory. The Cronbach’s alpha values in this dataset were 0.8 for the adapted P-CAT in the subscale we intended. The results were satisfactory. The Cronbach’s alpha values in this dataset were 0.8 for the adapted P-CAT, 0.81 for the EPC subscale and 0.82 for the OES subscale.

2.4.2 | Job strain

Job strain was measured with the demand and control items from the Demand-Control-Support Questionnaire by Karasek and Theorell (1990). A combination of high demands and low control in the workplace is likely to produce job strain (Karasek & Theorell, 1990). The five demand items and six control items were rated by the participants on a five-point Likert-type scale (yes, all the time; yes, often; yes, sometimes; no, seldom; no, never). Job strain was calculated by dividing the sum of the demand items by the sum of the control items, with higher values indicating more strain.

The validity and reliability of the job strain instrument tested in a Swedish population have been reported as satisfactory (Sanne et al., 2005). Cronbach’s alpha value for job strain in this dataset was 0.69.

2.4.3 | Stress of conscience

The Stress of Conscience Questionnaire (Glasberg et al., 2006) was used to measure stress occurring as a result of ethical dilemmas at work. This questionnaire was designed in Sweden to explore perceived stress related to not providing the care or activities that one wants to provide within a care setting (Glasberg et al., 2006). It consists of eight items, each divided into two parts: an A question that evaluates the frequency of a selected stressful situation using a scale ranging from 1 (never) to 10 (every day), and a B question that evaluates the perceived degree of troubled conscience generated by the situation using a scale ranging from 1 (no troubled conscience at all) to 10 (a very troubled conscience). The A score is multiplied by the B score to reflect the total stress of conscience for each item. Adding the scores for all eight items gives a total score ranging from 8 to 800.

Satisfactory psychometric properties have been reported for the Stress of Conscience Questionnaire in a Swedish healthcare population (Glasberg et al., 2006). Cronbach’s alpha in this dataset was 0.87.

2.4.4 | Intent to leave

Intent to leave was measured by two questions: ‘Do you think about leaving your job?’ (yes, often; yes, sometimes; no) and ‘Will you actively look for a new job within the next year?’ (yes, absolutely; yes, maybe; probably not; no). Both items were characterised as ordinal variables and used separately in the analysis as indicators of intent to leave. Comment sections were included for each of these items so that participants could explain their response, and these sections were checked in order to remove responses that were not related to their employment (e.g. migrating to another country or getting a promotion). Of the 13 comments made in total, three did not relate to the work environment and so were removed from the dataset.

2.4.5 | Background characteristics

The background characteristics concerned elements of the participants’ demographics and work environment that earlier research and theoretical considerations suggested could be important in providing context for the associations between the explanatory variables and perceived PCC. These characteristics included gender (categorical), age (in years), profession (categorical), employment (full-time/part-time), years worked at the department, years worked in healthcare, when the questionnaire was answered (April 2019, October 2019 or April 2020), previous experience with PCC (binary), opinion about PCC (numeric score of 1–10), work ability (numeric score of 1–10), whether they worked overtime (categorical), whether they worked shifts (categorical), WHO-5 Well-Being Index, and presenteeism (categorical). Presenteeism was measured with a single open question on how often they went to work despite being sick.

2.5 | Ethical considerations

Ethical approval was obtained from the Swedish Ethical Review Authority (Dnr: 2019–01287) and the guidelines of the General Data Protection Regulation (GDPR) were followed. Participants were given written information about the study, were guaranteed confidentiality in the presentation of the findings and were able to withdraw from the study at any time. The response to the online survey was regarded as informed consent.

2.6 | Data analysis

The analysis was conducted after the last data collection point (April 2020). P-values of 0.05 or less were considered significant. Version 25 of SPSS (IBM Corporation, 2018) was used to analyse the data. The responses to the five items in the P-CAT that are negatively worded (items 7, 8, 9, 10 and 12) were reversed before performing the analysis.
Table 1: Characteristics of the sample (n = 94) and mean differences in perceived Person-Centred Care (PCC) measured using the Person-Centred Care Assessment Tool (P-CAT)

| Characteristic                                             | N (%) | Mean (SD) | Range | P-CAT mean (SD) | p-value |
|------------------------------------------------------------|-------|-----------|-------|-----------------|---------|
| Gender                                                     |       |           |       |                 |         |
| Men                                                        | 10 (10.6) | 44.0 (7.6) |       |                 |         |
| Women                                                      | 84 (89.4) | 43.6 (8.5) |       |                 |         |
| Age                                                        | 90    | 42.8 (13.3) | 21–65 |                 | NS      |
| Profession                                                 |       |           |       |                 |         |
| Registered nurse                                           | 37 (39.4) | 42.1 (8.0) |       |                 | .02     |
| Assistant nurse                                            | 42 (44.7) | 44.1 (8.5) |       |                 |         |
| Specialist nurse                                           | 7 (7.4) | 39.4 (4.9) |       |                 |         |
| Other professions (e.g. biomedical analysts, physicians, managers) | 8 (8.5) | 52.0 (7.1) |       |                 |         |
| Years working at this department                           | 93    | 6.9 (6.7) | 0–32  |                 | NS      |
| Years working in healthcare                                | 94    | 18 (13.7) | 1–46  |                 | NS      |
| Experience with PCC\(^b\)                                  | 91    |           |       |                 | .03     |
| Yes                                                        | 42 (46.1) | 41.7 (8.8) |       |                 |         |
| No                                                         | 49 (53.9) | 45.5 (7.7) |       |                 |         |
| Opinion about PCC (score of 1–10)                          | 85    | 7.6 (1.8) | 4–10  |                 | .02     |
| Employment                                                 |       |           |       |                 |         |
| Full-time                                                  | 72 (77.4) | 43.4 (8.6) |       |                 | NS      |
| Part-time                                                  | 21 (22.6) | 43.8 (7.1) |       |                 |         |
| Working overtime                                           | 93    |           |       |                 | .04     |
| No                                                         | 25 (26.9) | 46.4 (8.6) |       |                 |         |
| Yes, mandatory overtime                                    | 9 (9.7) | 43.7 (8.1) |       |                 |         |
| Yes, other overtime                                        | 59 (63.4) | 42.3 (8.0) |       |                 |         |
| Shift work                                                 |       |           |       |                 | .005    |
| Only day shifts                                            | 13 (14.1) | 48.8 (9.6) |       |                 |         |
| Only night shifts                                          | 11 (12.0) | 42.8 (5.1) |       |                 |         |
| Shifts including weekends                                  | 38 (41.3) | 42.7 (6.8) |       |                 |         |
| Shifts including nights and weekends                       | 23 (25.0) | 43.7 (9.9) |       |                 |         |
| Different shifts                                           | 7 (7.6) | 37.7 (8.3) |       |                 |         |
| Work ability (score of 1–10)                               | 91    | 8.5 (1.5) | 3–10  |                 | NS      |
| WHO-5 Well-Being Index                                     | 90    |           |       |                 | NS      |
| 1 (worst)                                                  | 2 (3.9) | 44.5 (4.9) |       |                 |         |
| 2                                                          | 13 (14.4) | 40.1 (11.0) |       |                 |         |
| 3                                                          | 42 (46.7) | 43.6 (8.4) |       |                 |         |
| 4 (best)                                                   | 33 (36.7) | 45.0 (7.3) |       |                 |         |
| Presenteeism                                               | 84    |           |       |                 | NS      |
| Never                                                      | 38 (45.2) | 43.6 (8.2) |       |                 |         |
| Rarely                                                     | 24 (28.6) | 41.8 (9.0) |       |                 |         |
| Sometimes                                                  | 9 (10.7) | 45.1 (6.3) |       |                 |         |
| Often                                                      | 13 (15.5) | 44.8 (7.3) |       |                 |         |

Abbreviations: NS, non-significant; SD, standard deviation.

\(^a\)n does not always add up to 94 for all variables due to missing items.

\(^b\)Experience with PCC and opinions about PCC were theoretically more closely related to the outcome variable of perceived PCC than the explanatory variables and were therefore not included in further analysis.
Bivariate analyses were conducted to evaluate the correlation between the background characteristics and the P-CAT score. Bivariate analyses were also performed using Pearson correlation (r) for job strain and stress of conscience and Spearman correlation (r_s) for intent to leave, in order to explore the correlation between the explanatory variables and the P-CAT and its subscales EPH and OES.

Simple and multivariate linear regressions were performed using the job strain and stress of conscience variables along with P-CAT score as the outcome variable. For the two ordinal indicators of intent to leave, one-way ANOVA and ANCOVA were used in which dummy variables were created for the different response alternatives. The critical value for F in this sample was 3.11.

The regression analyses consisted of models with adjustments for background characteristics. Each background characteristic was analysed for its predictive value in the regression models and best model fit, and so not all variables from the descriptive analysis are presented in the regression models.

3 | RESULTS

The perceived PCC construct was answered by 94 unique participants. The mean score for perceived PCC was not significantly associated with the data collection time, confirming that the pilot study data were viable for this cross-sectional design.

The descriptive analysis (Table 1) revealed the distribution of the background characteristics combined with perceived PCC. The sample had an overrepresentation of women (89.4%) and consisted almost exclusively of RNs, assistant nurses and specialist nurses (91.5%). Participants without previous PCC experience perceived their workplace as significantly more person-centred than participants with previous experience of PCC. Type of profession, working overtime and working in shifts were also all significantly correlated with perceived PCC.

Table 2 presents the bivariate analyses of the correlation between the explanatory variables and perceived PCC and its subscales. Perceived PCC was associated with increased job strain (r = 0.43; p < .01) and decreased stress of conscience (r = −0.27; p < .05) and intent to leave (r_s = 0.31 & r_s = 0.34; p < .01). Correlating the subscales to the explanatory variables revealed a strong correlation with the P-CAT OES subscale with all-round significance levels p < .01. However, the P-CAT EPC subscale was only significantly associated with job strain and actively looking for a new job.

Table 3 shows the regression analyses for the explanatory variables and perceived PCC. Each model was adjusted for variables that were chosen based on their influence on the regression and grouped as well-being and presenteeism (Model I), profession and working hours (Model II), Model II combined with overtime and shift work (Model III), and all previous variables (Model IV).

The standardised β-coefficient (β) for job strain decreased with each model making the association less steep. The β became steeper for stress of conscience after adjustment for well-being and presenteeism (Model I and IV), and non-significant in Models II and III. The intent to leave indicators showed a significant positive association with perceived PCC indicating less resolve to leave among healthcare professionals who perceived more PCC. However, this association was reduced below the critical value (F < 3.11) when adjusted for well-being and presenteeism (Model I and IV), meaning the differences between the response alternatives within thinking about leaving and actively looking for a new job were not significantly different in their association with perceived PCC.

In Model I, with adjustment for well-being and presenteeism, the explained variance for stress of conscience of perceived PCC almost doubled (crude adjusted R²: 0.06; Model I adjusted R²: 0.10). In Models II and III, the working conditions had little influence on the explained variance of perceived PCC and job strain. Small increases in explained variance were seen in both thinking about leaving (crude adjusted R²: 0.10; Model III adjusted R²: 0.16) and actively looking for a new job (crude adjusted R²: 0.12; Model III adjusted R²: 0.19). In Model IV, all adjusted variables were added. This model showed no apparent difference to the previous models (I–III) except for an overall decrease in explained variance from the crude model with all variables.

4 | DISCUSSION

This study explored the associations between perceived PCC and specific healthcare professional outcomes in a cross-sectional study design. The main findings were that healthcare professionals who perceived their workplace as more person-centred also experienced higher job strain, less stress of conscience and less intent to leave.

| Explanatory variable | Perceived PCC (P-CAT) | Organisation and environmental support (P-CAT subscale) | Extent of personalising care (P-CAT subscale) |
|----------------------|-----------------------|--------------------------------------------------------|--------------------------------------------|
| Job strain           | 0.43**                | 0.39**                                                 | 0.36**                                     |
| Stress of conscience | −0.27*                | −0.32**                                                | −0.15                                      |
| Intent to leave      |                        |                                                        |                                            |
| Thinking about leaving | 0.31**               | 0.31**                                                 | 0.19                                       |
| Actively looking for a new job | 0.34**         | 0.36**                                                 | 0.24*                                      |

*p < .05; **p < .01.
| Variable                  | Crude | Model I<sup>a</sup> | Model II<sup>b</sup> | Model III<sup>c</sup> | Model IV<sup>d</sup> |
|---------------------------|-------|----------------------|----------------------|----------------------|----------------------|
|                           | β     | 95% CI               | Adj. R²              | β                   | 95% CI               | Adj. R²              | β                   | 95% CI               | Adj. R²              | β                   | 95% CI               | Adj. R²              |
| Job strain                | 0.43** | (9.24; 26.74)        | 0.17                 | 0.38** | (6.16; 27.71)        | 0.13                 | 0.36** | (5.45; 25.1)        | 0.14                 | 0.34** | (4.75; 24.22)        | 0.19                 | 0.29** | (1.59; 24.84)        | 0.16                 |
| Stress of conscience      | −0.27* | (−0.04; −0.01)       | 0.06                 | −0.40** | (−0.06; −0.01)       | 0.10                 | −0.23 | (−0.04; 0.01)       | 0.11                 | −0.26 | (−0.04; 0)           | 0.15                 | −0.44** | (−0.6; −0.01)        | 0.17                 |
| Thinking about leaving    | 5.53** | (1.64; 6.60)         | 0.10                 | 3.04*  | (1.39; 7.55)         | 0.10                 | 4.12** | (1.64; 6.50)        | 0.13                 | 3.65** | (0.91; 5.93)         | 0.16                 | 2.61*  | (0.57; 6.70)         | 0.15                 |
| Actively looking for a new job | 4.57** | (1.42; 5.30)       | 0.12                 | 2.24** | (0.95; 5.79)         | 0.08                 | 3.58** | (1.35; 5.28)        | 0.14                 | 3.52** | (0.80; 4.84)         | 0.19                 | 2.39** | (0.43; 5.39)         | 0.16                 |

All variables                      | 0.30** |                               | 0.27** |                               | 0.27** |                               | 0.30** |                               |

Abbreviation: Adj. R²: Adjusted R-squared.

<sup>a</sup>Model I: adjusted for well-being and presenteeism.
<sup>b</sup>Model II: adjusted for professions + full-time/part-time.
<sup>c</sup>Model III: adjusted for Model II + working overtime and shift work.
<sup>d</sup>Model IV: adjusted for Model I + Model III.

*p < .05; **p < .01.
The P-CAT was used to measure perceived PCC. Correlations between the explanatory variables and the P-CAT subscales showed that these variables had a stronger association with organisational and environmental support than with the extent of personalising care. This focus on structure is supported by previous research indicating that a supportive work environment, good leadership and teamwork were associated with an opportunity for more PCC (Carlström & Ekman, 2012; Røen et al., 2018; Sjögren et al., 2017; Wolf et al., 2017).

The insignificant correlations with the extent of personalising care subscale could be attributed to not all statements or subcategories of perceived PCC being considered equally important (Berghout et al., 2015). Each healthcare facility can decide which elements are relevant and suitable in its own situation (Berghout et al., 2015; Ekman et al., 2011; Moore et al., 2017). As the statements of the P-CAT were created for nursing homes, it is also possible that even with the modified items, the statements in the subscale measuring the extent of personalising care did not all apply to the hospital setting.

Job strain was positively associated with perceived PCC, indicating that participants who experienced more job strain were also more likely to perceive more PCC. A possible explanation could be that implementing a new type of care can be stress-inducing because of the time needed for listening to patient narratives, collaborating with the patient on their healthcare plan, and monitoring the plan (Britten et al., 2016; Verhaeghe et al., 2006). Similar results have been found in other studies, showing that increased workload when changing to a more PCC work environment may amplify the experience of job strain (Den Boer et al., 2017; Jeon et al., 2012; Willemse et al., 2014). As our results are based on cross-sectional data, it is not possible to tell the direction of a possible causal relation between these two variables. This result needs to be further examined in the future with a prospective study design.

Stress of conscience showed a negative association with perceived PCC, supporting the idea that working in a more person-centred environment relates to less ethical stress. Ethically difficult situations occur when an employee cannot provide care that aligns with their core values (Glasberg et al., 2006). However, stress of conscience was not significantly associated with the perceived extent of personalising care, which indicates that in this sample the experience of ethical stress did not distinctly relate to the person-centred treatment of patients. This is contradictory to other research reporting that healthcare professionals feel they need to work in alignment with the patients’ needs in order to decrease their stress of conscience (Edvardsson et al., 2014; Glasberg et al., 2007; Sjögren et al., 2015). As mentioned earlier, this disparity might have a methodological basis, as it is possible that persons with lower stress of conscience perceived more PCC in their work, particularly in terms of organisational and environmental support, than persons with higher stress of conscience.

The intent to leave variables were negatively framed, so a higher score indicated less intent to leave. The results showed that healthcare professionals who perceived their work as more person-centred were both less likely to be thinking about leaving and less likely to be intending to look for another job in the upcoming year. It has been suggested that PCC reduces routine-like work (Larsson & Blomqvist, 2015), which in turn might increase job satisfaction and a desire to remain in one’s current job (Rajamohan et al., 2019). Another possibility is that the participants were stimulated by the changes in their work environment, irrespective of the type of change. Alternatively, staff who have no intention to leave might be more attracted to working with PCC. Again, future studies are needed to determine the causal direction of associations found in this study.

The apparent contradiction of experiencing more job strain but less intent to leave when perceiving more PCC is consistent with the findings from a study by Willemse et al. (2014). Those authors argued that because the healthcare professionals worked in a more person-centred manner, they felt more satisfied, which is a separate issue from workload and job strain. The present study showed that these associations were influenced by work environmental conditions, as the adjustments for working hours, overtime and shift work produced weaker and even non-significant associations.

Overall, the explained variance in the regression analyses (Table 3) did not reach 20% for the explanatory variables, suggesting that many factors contribute to the experience of job strain, stress of conscience and intent to leave beyond the perception of a person-centred workplace. These findings raise intriguing questions regarding the understanding of implementing PCC for healthcare professionals in a hospital setting, such as which PCC elements are most relevant for improving the working experience of healthcare professionals.

### 4.1 Limitations

This pilot study has highlighted some limitations that need to be addressed and considered in future studies.

The cross-sectional design of this study means that the results must be interpreted with caution. It is not possible to say anything about the directions of the associations or about causality. Still, the associations found are relevant because they show a significant interaction between healthcare professional outcomes and the perception of PCC.

The P-CAT, which is designed for residential care facilities, was modified to fit the hospital environment through the distinct definition of PCC (i.e. Britten et al., 2016). While the internal consistency was adequate, psychometric testing is needed to confirm that the adapted P-CAT is a suitable measure for perceived PCC in hospital care settings.

The Cronbach’s alpha value of 0.69 for job strain was sufficient, but when this construct was divided into job demands and job control, the alpha values were too low to allow these concepts to be used separately in the analyses (job demands: \( \alpha = 0.57 \), job control: \( \alpha = 0.55 \)). The statements that caused the drop in values were ‘Do you have sufficient time for all your work tasks?’ and ‘Does your job require doing the same tasks over and over again?’ These questions
did not follow the same pattern as the others, which could be attributed to the specific structure of the work. Another possibility is that the Demand-Control-Support model is not sufficiently applicable to female-dominated sectors such as healthcare (Cerdas et al., 2019; Waldenström & Härenstam, 2008).

The choice to perform a cross-sectional study was made after the overall response rate of 23.8% was lower than anticipated. However, this response rate is consistent with other studies using a similar design involving web-based surveys (Cunningham et al., 2015; McLeod et al., 2013). As this was a pilot study, more emphasis will be placed on increasing the response rate in future studies.

5 | CONCLUSION

This cross-sectional study revealed that the participants who perceived higher PCC in their workplace reported higher job strain but lower stress about not providing the best care, and had less intention of leaving their employment. These results offer a positive signal that a more person-centred workplace might be able to address some of the issues of retaining qualified healthcare professionals. However, future full scale studies in different settings are needed to better understand how PCC interacts with the work environment.

The study also highlighted some of the difficulties of research within this field, as the response rate was low and nurses were overrepresented. Moreover, the cross-sectional association between higher job strain and perceived PCC indicates that a critical look into the possible negative consequences of working in a person-centred manner is necessary for future research.

Further research could assess the long-term interactions between PCC and healthcare professional outcomes. In particular, qualitative research could provide insights into how a person-centred workplace affects work-related health from the perspective of healthcare professionals, which has thus far been missing in PCC research.

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CONFLICT OF INTEREST

The authors have declared no conflict of interest.

AUTHOR CONTRIBUTIONS

The authors developed and conceived the pilot study together. CvD completed the data collection and analysis. CvD drafted the first version of the manuscript, including the tables’ design with feedback from all authors. The manuscript was then revised in different steps by AF, IE, MB and GH, with CvD taking the main responsibility for writing. All authors approved the final version of the study.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.

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