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Relationships between structural and psychological empowerment, mediated by person-centred processes and thriving for nursing home staff

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ABSTRACT

Person-centred care has been shown to have positive outcomes for patients and for staff. However, the complexity of the link between structural conditions, work in a person-centred manner and outcomes for staff is insufficiently described. We tested the relationship between structural empowerment and psychological empowerment, as mediated by nursing home staff members' self-ratings of working in a person-centred manner, the person-centred climate and thriving. Questionnaires were distributed to staff working in 12 nursing homes in Sweden. A serial mediation model was tested. The results showed that higher access to structural empowerment was related to higher psychological empowerment mediated by staff working in a more person-centred manner, improved person-centred climate, and improved staff ratings of thriving. These results point to the importance of strengthening the preconditions for staff to work in a person-centred manner and nursing home managers play an important role in this.

Introduction

Person-centred care has become, both internationally[1] and nationally[2] something of a gold standard for how patients and nursing home residents should be approached. In the Person-centred Practice Framework[3] four constructs are described: *prerequisites* that focus on staff attributes; *the care environment,* which is the context where care is delivered; *person-centred processes,* which focuses on the deliverance of care through activities that operationalize person-centred practice; *person-centred outcomes*, i.e., the results of effective person-centred practice. However, few studies have studied person-centred care in relation to the described framework. In the present study, the focus is on the care environment, deliverance of person-centred care and the outcomes for those delivering person-centred care.

The care environment in the Person-centred Practice Framework concerns, among other things, whether organizational systems are supportive and whether there is a sharing of power.[3] In Kanter's theory of structural empowerment, five structures are considered important to employee growth: having access to information that concerns work and organization, receiving support in the form of feedback on work performance, having access to necessary resources so the job can be done, and having access to both formal power (i.e., a job that is visible, relevant and extraordinary) and informal power (i.e., alliances with persons both inside and outside the organization who are of relevance to the employees' work).[4] Several studies have shown a positive relationship between structural empowerment and psychological empowerment.[5–8] While structural empowerment has an organization-centric perspective on empowerment, psychological empowerment concerns how employees experience their work.[6] Spreitzer described psychological empowerment as having four dimensions: meaning (a fit between the needs of one's work role and one's beliefs, values and behaviours), competence (belief in one's job performance), self-determination (having control over one's work) and impact (being able to influence important work outcomes).[6] McCormack et al. concluded that it is important that the workplace culture be democratic and inclusive if staff are to carry out person-centred care, which highlights the need for employees to have access to the above-described structural empowerment structures.[9]

The person-centred processes that McCance and McCormack considered to be fundamental are working with patients' beliefs and values, sharing decision-making with patients, being authentically engaged with patients, being sympathetically present and providing holistic care.[3] Studies have shown that person-centred care can

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have positive outcomes for the patient in terms of increased patient satisfaction[10] and improved self-efficacy.[11] When systematically applied, person-centred care has shown positive outcomes also for the healthcare system in terms of shorter length of stay.[12] McCance and McCormack[3] considered a key aspect when evaluating person-centred practice that staff feel valued for their work, and studies have shown that being able to practice person-centred care is associated with higher levels of job satisfaction[13,14] and job-related well-being.[15] Another concept focusing on a positive work-related state of mind is thriving, which has been defined as experiencing senses of vitality and learning at work.[16,17] Experiences of thriving have been shown to be negatively related to burnout and positively related to, among other things, job performance and general health.[17]

According to McCance and McCormack the care environment could, in other words, be described as the constructs of structural empowerment needed to enable person-centred work to take place.[3] If staff are able to work in a person-centred manner, it can be argued that the person-centred climate will be improved and that this improvement, in turn, will lead to experiences of vitality and learning. Enhanced vitality and learning could lead to experiences of increased meaning, competence, self-determination and impact.

There is previous research on the positive relationship being able to provide person-centred care and aspects of outcomes for staff, such as job satisfaction.[13,14] For patients outcomes of person-centred care interventions have been reported to be, for example, increased patient satisfaction.[10] There is also previous research on positive relationships between structural empowerment and working, for example, ability and willingness to work according to evidence-based[18] and prescribing practice.[19] Studies have also shown that there is a positive relationship between structural empowerment and work effectiveness[20] as well as between structural empowerment and quality of care.[21,22]

To summarize, there is a body of research on the positive outcomes for patients and staff of person-centred care and positive relationships between structural empowerment and different aspects of working. However, what is lacking is an understanding of how the different factors in the person-centred practice framework interact in the empowerment of staff. Therefore, the aim of the present study was to test the relationship between structural empowerment and psychological empowerment, as mediated by nursing home staff members' self-ratings of working in a person-centred manner, the person-centred climate and thriving.

Material and methods

Participants

The executive managers in eight municipalities were approached and of these five agreed and gave their written consent to participate in the study. The inclusion criterion for the nursing homes was that residents should live there permanently, and the exclusion criterion was that the facility should not be specialized in dementia care. Based on the voluntary, oral consent given by managers 12 facilities were included in the study. They were all publicly funded and varied in terms of location (urban 58%; rural 42%). All facilities were staffed by licensed practical nurses (LPNs), nurse assistants (NAs) and registered nurses (RNs) around the clock. The number of residents living in each unit varied between 7 and 16, which is representative of unit sizes in Sweden. In Sweden a nursing home is a special housing for older adults who need particular support that cannot be provided in regular housing. Many of the residents in Swedish nursing homes have complex healthcare needs and need substantial support during day and night. A significant amount of them have cognitive impairments in the form of dementia and therefore need specially adapted care.

The staff received oral information from their manager at a workplace meeting and from a member of the research group. All staff members ($n = 263$) were asked to participate. Coded questionnaires, together with an introductory letter, a consent form and a prepaid envelope were distributed to the staff. Two reminders were sent to non-responders.

Data collection

Data were collected using five questionnaires in addition to personal characteristics data.

Structural empowerment

A Swedish version[22] of the Conditions of Work Effectiveness Questionnaire II (CWEQ-II)[5] was used to measure structural empowerment. It consists of 19 items that measure six components of structural empowerment: formal power, informal power, perceived access to the work empowerment structures of opportunity, information, support and resources. Response alternatives range from 1 (None) to 5 (A lot). The six factor scores are averaged and summed, giving a total score for the instrument, with higher scores indicating a perception of greater structural empowerment. A total score of 6–13 indicates low levels of empowerment, 14–22 moderate levels and 23–30 indicate high levels. Cronbach's alpha for the total scale CWEQ II has in earlier research been reported to exceed 0.70.[22] Construct validity has been tested through principal component analysis and found to be satisfactory.[22]

Person-centred care

In order to measure the extent to which staff members rated the care provided as person-centred, a Swedish version[23] of the Person-centred Care Assessment Tool (P-CAT)[24] was used. This instrument has 13 items, measuring person-centeredness on the subscales *extent of personalizing care* and *amount of organizational and environmental support*, which are rated on a five-point scale (1 = No, I completely disagree to 5 = Yes, I completely agree). The total score is summarized, giving a range of 13–65 (middle of the scale = 39), with higher scores indicating a higher degree of person-centredness. Cronbach's alpha value for the whole scale has in a previous study been reported to be 0.75. Construct validity was supported by exploratory factor analysis.[23]

Person-centred climate

The Person-centred Climate Questionnaire – Staff version (PCQ-S) was used to measure the psychosocial climate at the units. The questionnaire consists of 14 items and has three subscales: a climate of safety, a climate of everydayness and a climate of community. Answers are given on a six-point scale ranging from 0 (No, I disagree completely) to 5 (Yes, I agree completely). Sum scores are used for total scores, ranging from 0 to 70. Total scale cut-off scores for unit person-centredness have been suggested: ≤49 (well below average), 50–56 (below average), 57–62 (above average) and ≥63 (well above average). Cronbach's alpha values for the whole scale have exceeded 0.70.[25] Content validity for the scale was evaluated through comparison with literature on the topic and through consultation with an expert group. Construct validity for the scale was estimated using principal component analysis. Content and construct validity were reported to be robust for the questionnaire.[26]

Thriving

The scale developed by Porath et al. was used to measure thriving at work. The scale has 10 items, half of which represent the learning component and the other half the vitality component. The response

alternatives range from 1 (Totally disagree) to 7 (Totally agree). The total score as well as the scores for the two components are summarized, with higher scores indicating a higher degree of thriving at work. The value at the middle of the scale is 4.[17] Cronbach's alpha value for the whole scale has been reported to exceed 0.70.[17,27] Support for construct validity, estimated through factor analysis has been reported.[17]

Psychological empowerment

Spreitzer's empowerment scale,[16,28] was used to measure psychological empowerment. The scale consists of 12 items covering four factors: meaning, competence, self-determination and impact. Response alternatives range from 1 (Strongly disagree) to 7 (Strongly agree). A total score as well as factor scores are averaged to form indexes ranging from 1 to 7 (middle of the scale = 4). Higher scores indicate perceptions of higher psychological empowerment. Satisfactory psychometric properties for the Swedish version have been reported with Cronbach's alpha values for the whole scale exceeding 0.70 and with support for the construct validity of the scale estimated through factor analyses.[28]

Ethical considerations

The project was approved by the Regional Ethical Review Board (reg. no. 2012/48). In the introductory letter, it was made clear that participation was voluntary and the participants were guaranteed confidentiality. Informed consent was obtained by the participants signing a consent form.

Data analysis

Data were analysed using IBM SPSS Statistics 22. Descriptive statistics were used to describe the variables and Pearson's correlation coefficient (r) to test bivariate correlations. The serial mediator model was tested using the PROCESS procedure for SPSS, described by Hayes,[28] and 5000 bootstrap samples for bias-corrected bootstrap confidence intervals (CIs). Bootstrap confidence intervals are recommended for inferential tests of the indirect effects as they handle the irregularity of the sampling distribution.[29] The direct and indirect effects of structural empowerment on psychological empowerment were tested using a serial multiple mediator model of person-centred care, person-centred climate and thriving. Regression residuals from the model were checked using a histogram, normal P–P Plot of regression standardized residuals and Shapiro–Wilk test of normality (non-significant), meaning that the data was normally distributed. Variance inflation factor (VIF) values for multicollinearity between independent variables in the model were less than 2.41, i.e. there was no multicollinearity problem.[30] Statistical significance level was set at $p < 0.05$.

Results

A total of 212 staff completed the questionnaires, giving a response rate of 80.6%. As shown in Table 1, the participants consisted mostly of females (96.7%), having a mean age of 46.7 years (range 19–64). A majority had an education as LPN or nurse assistant (89.3%) and had worked in nursing homes for a mean time of 18.7 years (range 0.5–42.0).

Descriptive statistics for the variables in the serial mediation model showed that the mean value for structural empowerment (19.3) indicated that staff rated a moderate level of structural empowerment and for psychological empowerment a mean value (5.7) above the middle of the scale's possible range. For person-centred care, the mean value (50.3) was at the higher end of the scale's possible range, while the mean value for person-centred climate (55.2) indicated below average. The mean value for thriving (5.4) fell slightly above the middle of the scale's possible range (Table 2). The bivariate correlation analyses indicated that higher levels of structural empowerment were associated with higher levels of psychological empowerment. When the participants rated higher levels of structural empowerment they also tended to rate the care as more person-centred and this in turn was associated with ratings of the climate as being more person-centred. Higher person-centred climate was associated with more thriving (Table 2).

Table 1
Demographic characteristics of the participants ($n = 212$).

Variable	
Sex[a]; Female/Male *n* (%)	203/7 (96.7/3.3)
Age; Mean age in years (range)	46.7 (19–64)
Education[a] *n* (%)	
University degree within healthcare[b]	5 (2.4)
Licensed practical nurse (LPN) or nurse assistant	184 (89.3)
None education within healthcare	17 (8.3)
Working time in nursing homes; Mean time in years (range)	18.7 (0.5–42.0)
Employment rate[a] *n* (%)	
Full time	109 (51.7)
Part time	102 (48.3)
Type of shift work[a] *n* (%)	
Day time	167 (81.1)
Night time	2 (1.0)
Both day and night time	37 (18.0)

[a] Internal missing data since the sums do not add up to 212.
[b] Registered nurse ($n = 4$), midwife with education from other country ($n = 1$).

Tests of the conceptual serial mediation model revealed a significant positive total effect of structural empowerment on psychological empowerment (Fig. 1; coefficient $c = 0.12$; the CI entirely above zero 0.09–0.15). An increase in 1 unit (U) in structural empowerment means an increase in psychological empowerment with 0.12 U. The possible scale range for these instruments are 6–30 for structural empowerment and 1–7 for psychological empowerment. The direct effect between structural empowerment and psychological empowerment decreased and became non-significant when controlling for the mediators (coefficient $c' = 0.03$; CI −0.002 to 0.05) (Fig. 1). The total indirect effect of structural empowerment on psychological empowerment was significantly positive (Fig. 1; 0.09; Bootstrap CI 0.07–0.12), i.e., an increase in 1 U in structural empowerment means an increase in psychological empowerment with 0.09 U as a result of all the indirect effects in the model. Regarding the different pathways for indirect effects, there was an indirect effect through the mediators person-centred care, person-centred climate and thriving in serial (Fig. 1; a_1, d_{21}, d_{32}, b_3). Furthermore, there were significant positive indirect effects of person-centred care only (a_1, b_1); person-centred climate only (a_2, b_2) and thriving only (a_3, b_3), as well as significant positive effects through person-centred care and person-centred climate in serial (a_1, d_{21}, b_2); through person-centred climate and thriving in serial (a_2, d_{32}, b_3), but not through person-centred care and thriving in serial (a_1, d_{31}, b_3) (Fig. 1). The total model explained 57.7% of the variance in psychological empowerment.

Discussion

As shown in the results, higher access to structural empowerment was related to higher psychological empowerment mediated by staff working in a more person-centred manner, improved person-centred climate and improved staff ratings of thriving (learning and development). However, if person-centred climate is not taken into consideration, the link between structural empowerment and psychological empowerment through person-centred care and thriving in serial is non-significant, i.e., if the climate is not taken into consideration in the link, an increased rating of working in a more person-centred

Table 2
Descriptive statistics and correlation matrix for the variables in the serial mediation model test.

Variable	Cronbach's α	Mean	Range	1.	2.	3.	4.
1. Structural empowerment, *n* = 188	0.89	19.3	9.2–29.2				
2. Psychological empowerment, *n* = 209	0.86	5.7	3.4–7.0	0.57**			
3. Person-centred care, *n* = 194	0.81	50.3	29–65	0.58**	0.56**		
4. Person-centred climate, *n* = 202	0.90	55.2	27–70	0.58**	0.63**	0.68**	
5. Thriving, *n* = 208	0.90	5.4	2–7	0.54**	0.65**	0.49**	0.59**

Pearson's product moment correlation was used for bivariate correlations.
n refers to the number of participants completing all of the items in each of the questionnaires.
** $p < 0.01$.

manner does not itself increase staff ratings of thriving and, in turn, psychological empowerment. The total model explained 57.7% of the variance in psychological empowerment.

Our results on the association between experiencing sufficient levels of structural empowerment and being able to work in a person-centred manner are in line with the importance McCance and McCormack[3] attach to the care environment as regards its limiting or facilitating working in a person-centred manner. It is true that they included more characteristics in the care environment than are measured in the construct of structural empowerment. However, structural empowerment concerns structures in the care or work environment that could be described as very fundamental.[4] For this reason, structural empowerment could be considered as good indicator of in what ways the work environment is perceived. As described earlier, outcomes of person-centred processes have been shown to be beneficial to both patients[10,11] and staff.[14,31]. According to McCance and McCormack, when people work in a person-centred manner, the overall outcome is human flourishing[3] and Edvardsson et al.[13] reported similar results. In the present study, this is reflected in the result showing that working in a person-centred manner is

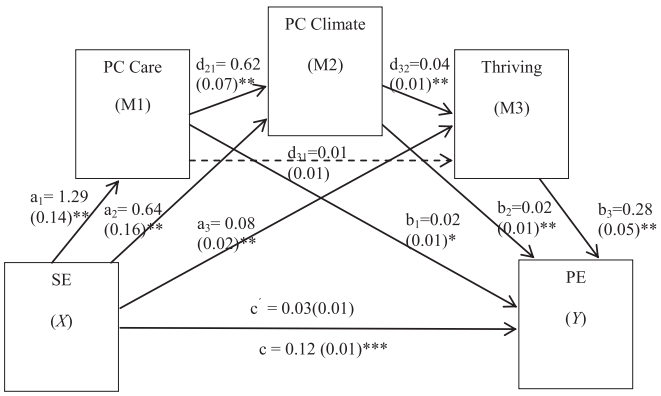

Fig. 1. A model of the effect of Structural Empowerment (SE) through the mediators: Person-centred Care (PC Care), Person-centred Climate (PC Climate) and Thriving in serial, on Psychological Empowerment (PE), unstandardized regression coefficients (standard errors), *n* = 174; PROCESS procedure for SPSS (Hayes 2013) and 5000 bootstrap samples for bias corrected bootstrap confidence intervals (CIs) was used to test the model.

Coefficients a_i = the effects of SE on the mediators PC care, PC climate and Thriving controlling for earlier mediators in serial in the model. Coefficients b_i = the effects of the mediators on PE, controlling for the direct effect of SE and the other mediators. Coefficients d_{ij} = the effects of earlier mediators on subsequent mediators in serial. Coefficients *c* = total effect between *X* and *Y*; and *c'* = direct effect of *X* on *Y* while controlling for the three mediators. Non-significant paths are illustrated with dotted lines; $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

Total indirect effect of SE on PE = 0.09 (Boot CIs 0.07;0.12) Indirect effect of SE on PE through M_1 only = 0.02 (0.002;0.04) Indirect effect of SE on PE through M_1 and M_2 in serial = 0.02 (0.005;0.03) *Indirect effect of SE on PE through M_1 and M_3 in serial = 0.004 (−0.005;0.01)* Indirect effect of SE on PE through M_1, M_2, and M_3 in serial = 0.01 (0.004;0.02) Indirect effect of SE on PE through M_2 only = 0.01 (0.004;0.03) Indirect effect of SE on PE through M_2 and M_3 in serial = 0.01 (0.003;0.02) Indirect effect of SE on PE through M_3 only = 0.02 (0.01;0.04).

associated with learning and vitality, i.e., thriving at work. This may not surprising: Working in a person-centred manner means focusing on the individual and not on tasks and routines, and this could arguably be described as the way most nursing home staff would like to provide care. But staff ratings of being able to work in a person-centred manner are not only associated to higher levels of thriving, according to the present findings, but also to higher levels of psychological empowerment, which is manifested as experiencing a fit between the needs of one's work role and one's beliefs, values and behaviours, belief in one's job performance, control over one's work and ability to influence important outcomes at work.[6]

Methodological considerations

The study has some limitations that should be considered when interpreting the results. The convenience sampling strategy limits our ability to make external generalizations and the results should only be generalized to similar contexts, i.e., to staff working in nursing homes where the residents have complex healthcare needs. Since the study has a cross-sectional design conclusions concerning causality cannot be drawn. As in many studies with self-reported data there is a risk for social desirability response bias. This was attempted to be overcome by the staff sending the completed questionnaires directly to the researchers, the managers had no way of knowing what individuals had answered. One strength of the study is that the questionnaires had previously been assessed regarding validity and reliability and reported to have acceptable psychometric properties. Another strength is the high response rate (80.6%).

Conclusions

This study showed that higher access to structural empowerment for nursing home staff was related to higher psychological empowerment mediated by staff working in a more person-centred manner, improved person-centred climate and improved staff ratings of thriving. The study results thereby support the person-centred practice framework and highlight the importance of an empowering and enabling work environment. These results point to the importance of strengthening the preconditions for staff to work in a person-centred manner. Being able to work in a person-centred manner seems to be beneficial for staff and receiving person-centred care has previously been shown to have positive outcomes for patients and residents. Nursing home managers therefore play an important role in strengthening the preconditions for staff to work in a person-centred manner.

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Conflicts of interest

None.

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