Uncovering the care setting–turnover intention relationship of geriatric nurses

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Abstract In times of global demographic changes, strategies are needed for improving nursing staff retention. We examined the association of care setting (nursing homes and home care) with geriatric nurses' intention to leave their job and their profession. Thus far, it is unclear why nurses' turnover intention and behaviour do not differ between care settings, although working conditions tend to be better in home care. We used the Job Demands-Resources model to explain indirect and buffering effects by job demands (time pressure, social conflicts) and resources (task identity, supervisor support, and co-worker support) via nurses' perceived health and job satisfaction on nurses' leaving intentions. The present cross-sectional questionnaire study was conducted with a sample of $N = 278$ registered nurses and nursing aides in German geriatric care. As expected, there was no direct relationship between care setting and leaving attitudes. Demands and resources predicted the intention to leave with job satisfaction as mediator. We found more demands in nursing homes but no differences in resources. Serial mediation effects of care

setting on intentions to leave via demands/resources and health/job satisfaction as mediators were found only for time pressure and social conflicts. Unexpectedly, there were no clear differences between intention to leave the job and the profession. As hypotheses were only partly confirmed, other buffering and detrimental effects on leaving intentions are discussed. The present data suggest that detailed concepts for personnel and career planning in geriatric care are needed.

Keywords Turnover intention · Job demands · Resources · Job satisfaction · Health · Geriatric nurses

Introduction

Nurses' turnover is a central problem, particularly in the geriatric care sector, because it negatively affects organisational effectiveness and quality of care (Hayes et al. 2012). Approximately one-third of German nurses consider leaving the job in the subsequent year with 17 % considering leaving the profession, the highest proportion compared to European countries (Hasselhorn et al. 2003; Heinen et al. 2013). Thus it is important to understand the fine-grained mechanisms underlying turnover in this group. Conceptually, several models highlight the complex interplay of multiple and multilevel antecedents for the prediction of turnover attitudes and behaviour (Gilmartin 2013). Most of them account for mediating effects of health and attitudinal variables (e.g. job satisfaction and organisational/professional commitment) that are influenced by work (e.g. job demands and job resources), organisational (e.g. leadership), and individual variables (e.g. age and gender) (for an overview of diverse antecedents of nurse turnover see Flinkman et al. 2010;

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Hayes et al. 2012; Nei et al. 2015). Recently, scholars have investigated the specific role of superordinate organisational structure variables, like care setting, as these might be the starting point of turnover processes (Hayes et al. 2012; Daouk-Öyry et al. 2014).

Geriatric care setting and nurse turnover

The present study focused on the role of geriatric care setting (nursing homes vs. home care). The popularity of home care is expected to increase in the future because of its expected lower cost and because older people wish to stay in their own homes as long as possible (Genet et al. 2011). In Germany, the number of geriatric patients in home care increased, from 2011 to 2013, nearly twice as much as in nursing homes (German Federal Statistical Office 2015). Home care offers benefits for geriatric nurses as well, for instance more flexible working hours (Gregersen 2005). Nurses in home care have more privileged working conditions than those in nursing homes (Nübling et al. 2010; Wendsche et al. 2014). For example, nurses in home care experience more autonomy as well as less physical and psychological demands (e.g. time pressure) (Hasson and Arnetz 2007; Kromark et al. 2009; Tummers et al. 2013). Moreover, nurses in nursing homes have more social interrelations at work (Nübling et al. 2010), yielding more social support (Kromark et al. 2009) but also more social conflicts (Simon et al. 2005; Tummers et al. 2013; but see Nübling et al. 2010). Notably, the abovementioned factors have all been confirmed to be antecedents of nurses' turnover attitudes and behaviour (Flinkman et al. 2010; Hayes et al. 2012; Nei et al. 2015). So far, large studies have failed to show a *direct* relationship between geriatric care setting and leaving intentions (Hasselhorn et al. 2003; Nübling et al. 2010; Tummers et al. 2013). A plausible explanation for this might be mediator effects and buffering factors. As Wendsche et al. (2014) have proposed, *opposing indirect relationships* between variables affecting geriatric nurses' intention to leave might mask the direct effect of care setting on turnover intention. On the other hand, beneficial job resources (e.g. social support and collective rest breaks; Kromark et al. 2009; Wendsche et al. 2014) in nursing homes might attenuate the relationship of job stressors and turnover in this field.

Study aims and hypotheses

Our research is based on the Job Demands-Resources Model (JD-R model; Bakker and Demerouti 2007). We examined mediators in the relationship between care setting and turnover intentions (Fig. 1). We predicted that geriatric

nurses in home care have different demands and resources than nurses in nursing homes. In our model, we examined both *job characteristics* (task identity, time pressure) and work-related *social relations* (supervisor support, co-worker support, social conflicts); each as a *resource* (task identity, supervisor support, co-worker support) and as a *demand* (time pressure, social conflicts), including their interaction effects as proposed by the JD-R model. Low time pressure and social conflicts, as well as high support by supervisors and co-workers, are known as beneficial mediators in the prediction of *health* and *job satisfaction* and consequently *turnover intention* (Karantzas et al. 2012; Simon et al. 2005). Thus far, task identity has not received much attention in nursing turnover research, except for one study which stressed its importance in retention (Katrinli et al. 2009). To our knowledge, no study has investigated this concept in the context of care settings.

Task identity is defined as the “degree to which the job requires completion of a ‘whole’ and identifiable piece of work; that is, doing a job from beginning to end with a visible outcome” (Hackman and Oldham 1976, p. 257). We expected task identity to be experienced more often in home care—where nurses usually work individually—compared to nursing homes, where they mostly work in teams (Gregersen 2005; Nübling et al. 2010). The Job Characteristics Model (Hackman and Oldham 1976), the Action Regulation Theory (Hacker 2003), and the JD-R model (Bakker and Demerouti 2007) regard task identity as a job resource that positively influences job satisfaction and mental health (Humphrey et al. 2007). Hence, task identity might act as a protective factor against turnover intention. However, a moderating role by attenuating adverse effects of job stressors is also plausible as the meta-analysis of Humphrey et al. (2007) did not confirm direct relationships with turnover intentions besides indirect effects via job satisfaction and nurses' perceived health. Finally, we examined both the *intention to leave the job* and *intention to give up the nursing profession*, because research suggested different antecedents and effect sizes for both outcomes (Heinen et al. 2013).

The following hypotheses were tested (see Fig. 1 for an overview):

1. Nurses working in nursing homes face higher time pressure (H1a) and more social conflicts (H1b), less task identity (H1c), and more support by supervisor (H1d) and co-workers (H1e) than nurses working in home care.
2. Task identity (H2a, H2b), supervisor support (H2c, H2d), and co-worker support (H2e, H2f) are positively associated with health and job satisfaction; time pressure (H2g, H2h) and social conflicts (H2i, H2j) are negatively associated with health and job satisfaction.

Fig. 1 A proposed multiple mediation model for the association of care setting with geriatric nurses' turnover intention through job demands, job resources, health, and job satisfaction, based on the Job Demands-Resources model (Bakker and Demerouti 2007) including hypotheses

- Health (H3a, H3b) and job satisfaction (H3c, H3d) are negatively associated with the intentions to leave the job and the profession.
- Health and job satisfaction each mediate the positive relationships between time pressure (H4a, H4b, H4c, H4d) and social conflicts (H4e, H4f, H4g, H4h) with intentions to leave the job and the profession; as well as the negative relationships between task identity (H4i, H4j, H4k, H4l), supervisor support (H4m, H4n, H4o, H4p), and co-worker support (H4q, H4r, H4s, H4t) with intentions to leave the job and the profession.
- Time pressure (H5a, H5b, H5c, H5d), social conflicts (H5e–H5h), task identity (H5i–H5l), supervisor support (H5m–H5p), co-worker support (H5q–H5t), health, and job satisfaction act as multiple mediators in the relationship between care setting and intentions to leave the job and the profession.
- Task identity (H6a–H6x), supervisor support (H7a–H7x), and co-worker support (H8a–H8x) each buffer the negative relationships between time pressure (H6a–H6l, H7a–H7l, H8a–H8l) and social conflicts (H6m–H6x, H7m–H7x, H8m–H8x) with health and job satisfaction, with intentions to leave the job and the profession, as well as the relationships of demands and leaving intentions with health and job satisfaction as mediators, and the full serial model of care setting, mediators, and leaving intentions.

Method

Participants and Design

Data are from a larger German study on “Organizational and Individual Determinants of Geriatric Nurses’ Health and Work Ability” (ODEM study; see Bilinska et al. in press;

Goerdeler et al. 2014; Ihle et al. 2015; and Wendsche et al. 2014 for how the sample was recruited). The protocol for the individual part of the study included answering a questionnaire about working conditions, work attitudes, and health. Three-hundred and eight subjects from 42 institutions returned questionnaires. Out of this initial sample, we excluded nurses holding no prototypical geriatric care duties ($n = 24$), apprentices ($n = 5$), and one respondent aged 68. The remaining sample comprised 278 subjects (65 nursing aides [NAs], 160 registered nurses [RNs], and 53 RNs with leadership duties). Leadership duties were no predictor of our model variables: job demands, job resources, health, job satisfaction, and leaving intentions (all $t_s < 1.87$, $p_s > .07$).

The study was ethically approved by the German Research Foundation. Anonymity and privacy compliance were assured; participants gave written consent for participating in the study.

Measures

Organisational context

We used documentary data to assess the participants’ care setting (0 = *home care*, 1 = *nursing home*) and type of ownership (0 = *public/non-profit organisation*, 1 = *for-profit organisation*). We matched these records with respondents’ individual questionnaire data.

Questionnaires

The questionnaires used in this study were a selection of established and validated instruments.

Turnover intention Turnover intention was assessed with four items adapted from Simon et al. (2010) containing different stages of professional change. Additionally, three

items from the Intention to Quit Questionnaire (ITQ; Price 1997) with a five-point rating scale were used (see Table 2). Due to the different scales, we calculated *z*-scores for each item and used their mean for further analyses. An explanatory factor analysis (Varimax Rotation) revealed two factors that explained about 75 % of the variance. Based on their loadings, we interpreted these factors as *intention to leave the job* and *intention to leave the profession*.

Intention to leave the job (ITLjob) The scale was formed by items such as “changing teams or living areas”—as well as probes from the ITQ like “These days, I often feel like quitting” (all factor loadings over .70). The scale achieved good reliability with $\alpha = .86$.

Intention to leave the profession (ITLprof) This scale was constructed with items such as “giving up the nursing profession”, which showed factor loadings over .69. Internal consistency was $\alpha = .75$.

Time pressure We used the “Salutogenetic Subjective Work Analysis” (SALSA; Rimann and Udris 1997) to measure time pressure. Subjects answered the question “At the workplace, how severe is your degree of strain by time pressure?” on a six-point rating scale from 1 (*does not occur*) to 6 (*severe*).

Task identity Three items for task identity were taken also from the SALSA, such as “At this job I do something as a whole, in complete”. Subjects rated statements on a five-point rating scale, ranging from 1 (*almost never/absolutely disagree*) to 5 (*almost all the time / absolutely agree*). The mean was computed and used for further analyses. The scale achieved adequate internal consistency ($\alpha = .68$).

Work-related social support We assessed supervisor support with seven items taken from the SALSA; for example: “My supervisor lets me know how well I have done my work”. For co-worker support, we used two items from the SALSA; for example: “How willing are your co-workers to listen to your problems at work?”. The rating scale was the same as for task identity. Means were computed. Internal consistencies were satisfactory for both supervisor ($\alpha = .91$) and co-worker support ($\alpha = .75$).

Social conflicts We measured social conflicts with the mean rating of three items taken from the SALSA. Subjects rated statements such as “There is often tension at the workplace” on the aforementioned five-point rating scale. The scale showed adequate reliability in the present study ($\alpha = .72$).

Health Subjects answered the item “How would you describe your general state of health?” taken from the

German SF-12 health survey (Bullinger and Kirchberger 1998) on a five-point rating scale ranging from 1 (*bad*) to 5 (*excellent*).

Job satisfaction We measured job satisfaction with one item, namely “How satisfied are you with your work in general?” The response scale ranged from 1 (*extremely unsatisfied*) to 7 (*extremely satisfied*).

Control variables Based on recent turnover literature (Hayes et al. 2012; Nei et al. 2015), age in years, gender (0 = *female*, 1 = *male*); job status (1 = *registered nurse*, 2 = *nursing aide*, 3 = *other*); weekly working time (0 = *full-time*, i.e. 30 h or more, 1 = *part-time*, i.e. less than 30 h); and work contract (0 = *permanent*, 1 = *fixed-term*) were included in the study as control variables and sample characteristics.

Data analysis

First, we examined bivariate associations between all variables with the Pearson’s product moment correlation coefficient *r*. Second, the association of the independent and potential mediating variables with intention to leave was tested with serial or multiple mediator analyses using the PROCESS Tool by Hayes (2013). For this purpose, we examined *multiple mediation models* of job demands or resources with health and job satisfaction as mediators on leaving intentions to test established paths in turnover research, for example: time pressure → health → intention to leave the job. Next, we tested *serial mediation effects*, assuming that care setting shows associations with job demands and resources, which in turn influence attitudinal variables—which again show a relationship with intention to leave. We tested each path of the model for the different demands/resources, health or job satisfaction, and intention to leave the job or profession, which resulted in a total of 20 paths, for example: care setting → time pressure → health → intention to leave the job. We used the bootstrapping method (5000 bootstrap samples) to test statistical inference for all path coefficients: total, direct, total indirect, and specific indirect effects with bias corrected and accelerated confidence intervals (Hayes 2013). If the 95 % confidence interval did not include zero, we concluded that the indirect effect was statistically significant with $p < .05$. All relationships were controlled for ownership as well as age, gender, and weekly working time as they showed significant relationships with intention to leave the job and/or the profession (see Table 1). We performed all analyses with as well as without adjusting for other demands and resources.

Table 1 Descriptive statistics and intercorrelations

Variable	N	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Age	278	42.28	11.27	–														
2 Gender				–.21**	–													
Female (0)	243																	
Male (1)	34																	
3 Care setting				.03	.00	–												
Home care (0)	172																	
Nursing home (1)	106																	
4 Type of ownership				–.26**	.08	–.29**	–											
Public/non-profit (0)	160																	
For-profit (1)	118																	
5 Job status				.21**	–.08	–.03	.00	–										
Registered nurse (1)	213																	
Nursing aide (2)	65																	
6 Work contract				–.17**	.08	.03	–.11	.03	–									
Permanent (0)	257																	
Fixed-term (1)	18																	
7 Working time				.23**	–.10	.03	–.36**	.26**	.15*	–								
Full-time (0)	165																	
Part-time (1)	106																	
8 Time Pressure	278	4.69	1.14	.04	.01	.20**	–.15*	–.17**	–.01	–.12*	–							
9 Task Identity	278	3.62	.76	–.14*	–.13*	–.04	.10	.12*	–.08	.07	–.21**	–						
10 Supervisor support	276	3.68	.78	–.02	–.03	–.02	.20**	.05	.02	.02	–.19**	.26**	–					
11 Co-worker support	276	3.72	.73	.03	–.06	–.07	.18**	.04	.05	.05	–.16**	.35**	.46**	–				
12 Social conflicts at work	278	2.62	.75	–.10	.08	.19*	–.10	–.01	.07	–.11	.36**	–.27**	–.32**	–.39**	–			
13 Health	278	3.09	.73	–.16*	.10	–.13*	.09	–.03	.03	–.03	–.15*	.26**	.20**	.20**	–.29**	–		
14 Job satisfaction	274	4.96	1.07	–.09	–.05	–.14*	.09	–.04	.06	.05	–.29**	.42**	.35**	.31**	–.48**	.35**	–	
15 ITL _{job}	277	.00 ^a	.84	–.03	.14*	.00	.06	–.05	.02	–.17**	.19**	–.26**	–.33**	–.30**	.42**	–.21**	–.44**	–
16 ITL _{prof}	277	.00 ^a	.82	.13*	.06	.03	–.04	.03	–.10	–.09	.24**	–.20**	–.21**	–.24**	.34**	–.20**	–.44**	.53**

N number of nurses, ITL_{job} intention to leave the job, ITL_{prof} intention to leave the profession* $p \leq .05$; ** $p \leq .01$ ^a z-standardised for each item. Level of significance (two-tailed)

To further investigate job resources as a moderator of the job demands-effects, we applied moderated regression analyses for all demands-resources combinations separately (see Dawson 2014). We regressed job satisfaction, health, and both turnover attitudes on the demands-resources two-way interactions terms (mean centred variables; models adjusted for care setting, ownership, important control variables, and all demands and resources variables). In this way, a significant interaction term indicated moderation. For those, we examined serial-mediated moderation models (care setting → interaction term of job demands × job resources → health/job satisfaction → turnover intentions; 5000 bootstrap samples with bias corrected and accelerated confidence intervals). All statistical analyses were conducted with SPSS (version 22.0).

Results

Descriptive and correlational analyses

Sample characteristics

As seen in Table 1, the sample was dominantly female. The age of nurses varied from 20 to 63 years and most of them worked in home care and in public/non-profit organisations. Compared to official statistics, public/non-profit home care services were slightly overrepresented in our sample (28.8 vs. 18.5 %), and for-profit nursing homes

were underrepresented (9.4 vs. 20.2 %) (German Federal Statistical Office 2015). Therefore, we controlled for type of ownership in our analyses. The majority of nurses had a fixed-term work contract and worked full-time.

Intercorrelations

Table 1 shows means and standard deviations for all variables as well as their bivariate intercorrelations. All correlations between main variables and intention to leave were statistically significant in the anticipated direction.

Turnover intention

Table 2 shows response frequencies regarding turnover intention. One-fifth to a third of respondents mentioned that they had thought about changing units, institutions, professions, or leaving the labour market entirely several times a year. Only a small percentage of subjects had thoughts about leaving more often.

Multiple and serial mediator analyses

Direct effects

Figure 2 shows direct effects between variables. We found no significant direct relationships between care setting and intention to leave the job or the profession ($ps > .24$). In line with our predictions, geriatric nurses in nursing homes reported significantly more time pressure (H1a) and more

Table 2 Response frequencies for turnover intention items

In the last 12 months, how many times have you thought about...	Never	Sometimes/year	Sometimes/month	Sometimes/week	Daily
Leaving Intentions (Simon et al. 2010)					
...changing to another team of your institution? ($N = 274$) ^a	69.3	23.0	4.4	2.6	0.7
...changing nursing homes/home care units? ($N = 275$) ^a	61.8	29.1	5.1	3.3	0.7
...giving up the nursing profession? ($N = 276$) ^b	65.2	23.9	8.3	1.8	0.7
...leaving the labour market entirely? ($N = 277$) ^b	76.2	18.1	3.2	1.8	0.7
	Almost never	Hardly	Moderately	Mostly	Almost always
Intention to Quit Questionnaire (Price 1997)					
These days, I often feel like quitting. ($N = 277$) ^a	71.5	13.5	9.0	4.0	2.2
Despite the obligations I have made to this organisation, I want to quit my job as soon as possible. ($N = 277$) ^a	78.7	13.0	6.1	1.8	0.4
If I could, I would quit today. ($N = 277$) ^b	76.9	9.7	6.9	4.3	2.2

Response rates are displayed in percentage

N number of nurses

^a Intention to leave the job

^b Intention to leave the profession

Fig. 2 Results of model estimation ($N = 261$ – 275). Path coefficients are standardised parameter estimates. Care setting (0 = *home care*, 1 = *nursing home*); ITLjob = intention to leave the job; ITLprof = intention to leave the profession. Adjustment of regression

models for the following confounders: *a* age, *b* gender, *c* weekly working time, *d* other demands/resources, all relationships controlled for ownership. Significant ($p < .05$) direct effects are in **boldface**

work-related social conflicts (H1b) compared to nurses working in home care. The relationship between care setting and time pressure was no longer significant when adjusted for other demands/resources. There were no significant differences for relations between care setting and task identity (H1c), supervisor support (H1d), and co-worker support (H1e). Health was negatively linked to social conflicts (H2i) and positively linked to task identity (H2a). Job satisfaction was negatively linked to social conflicts (H2j) and positively linked to task identity (H2b) and supervisor support (H2d). Job satisfaction was further negatively related to intention to leave the job (H3c) and the profession (H3d); contrary to our expectations, health was not (H3a, H3b).

Indirect effects

We found significant indirect effects (see below 95 % CIs in brackets) of time pressure (H4b: [0.001, 0.045])

on intention to leave the job, and, moreover, of social conflicts (H4f: [0.038, 0.180]; H4h: [0.056, 0.209]), task identity (H4j: [−0.147, −0.023]; H4l: [−0.181, −0.034]), and supervisor support (H4n: [−0.099, −0.015]; H4p: [−0.112, −0.017]) on intentions to leave the job and the profession, with job satisfaction as mediator. Indirect effects of care setting and intention to leave with demands/resources and health or job satisfaction, respectively, as multiple mediators, could be confirmed only for time pressure (H5a: [0.001, 0.027]; H5b: [0.001, 0.020]; H5c: [0.010, 0.069]; H5d: [0.009, 0.065]) and partly for social conflicts (H5e: [0.003, 0.032]; H5g: [0.013, 0.095]; H5h: [0.015, 0.097]). For social conflicts, relationships were still significant when other demands/resources were controlled (H5e: [0.001, 0.016]; H5g: [0.005, 0.057]; H5h: [0.007, 0.065]), whereas effects were no longer significant for time pressure.

Moderator effects

From all demands-resources combinations, we found only task identity to buffer the effects of social conflicts on job satisfaction (H6n: $\beta_{\text{Interaction}} = .16$, $p = .002$, $\Delta R^2 = .02$), intentions to leave the job (H6o: $\beta_{\text{Interaction}} = -.23$, $p < .001$, $\Delta R^2 = .05$), and the profession (H6p: $\beta_{\text{Interaction}} = -.19$, $p = .001$, $\Delta R^2 = .03$). Simple slope analysis with the PROCESS Plugin for SPSS (Hayes 2013; $\pm 1\text{SD}$) revealed that increasing task identity attenuated the negative relationship between social conflicts and job satisfaction (H6n: $\beta_{\text{low}} = -.68$, $p < .001$, $\beta_{\text{high}} = -.30$, $p = .004$). Moreover, the positive relationship between social conflicts and leaving intentions diminished under high task identity (H6o: $\beta_{\text{low}} = .58$, $p < .001$, $\beta_{\text{high}} = .11$, $p = .231$; H6p: $\beta_{\text{low}} = .46$, $p < .001$, $\beta_{\text{high}} = .08$, $p = .374$). We further found that the interaction between social conflicts and task identity on leaving intentions was mediated by job satisfaction (indirect effects with 95 % CIs; H6s: $B = -0.04$ [$-.10$, $-.01$], H6t: $B = -0.05$ [$-.13$, $-.02$]). However, the full serial-mediated moderator model marginally failed to reach significance (specific indirect effects with 95 % CIs; H6w: $B = -0.003$ [$-.016$, $.002$]; H6x: $B = -0.003$ [$-.017$, $.003$]).

Job status

We further investigated the role of nursing qualification (registered nurse vs. nursing aide) in our model. Previous studies not only showed that there are more nursing aides working in nursing homes (Kromark et al. 2009), but that there are differences in the perception of job demands and resources (Morgan et al. 2002) as well as leaving intentions (Hasselhorn et al. 2003). In our sample, we found only few significant, mostly small relationships of job status and variables in the model, that is: age ($r = .21$), weekly working time ($r = .26$), time pressure ($r = -.17$), and task identity ($r = .12$) (see Table 1). As described above, mediator models were already adjusted for age and weekly working time. To rule out other potential influences on relationships between variables in the model, we computed regression models using the PROCESS tool (Hayes 2013) with job status as a moderator for (1) care setting and demands/resources; (2) care setting and intention to leave the job and the profession, respectively; as well as (3) demands/resources, and intention to leave the job/profession. We tested each model in three steps: (a) unadjusted, (b) adjusted for type of ownership, age, gender, and weekly working time, and (c) adjusted additionally for other demands and resources. None of these models showed a significant moderator effect for job status, which means that all tested (multiple) mediator models are valid for both nursing groups.

Common method bias

To statistically examine a potential common method bias we ran Harman's single-factor test by doing a principal component factor analysis with an unrotated factor solution (Podsakoff et al. 2003). In the case of a common method bias, "one general factor will account for the majority of the covariance among the measures" (Podsakoff et al. 2003, p. 889). Yet, in model 1 (all single items), the general factor explained 31.3 % and in model 2 (scale means) 38.6 % of variance. Thus, the majority of variance was not accounted for by a single general factor. Modelling data with a CFA in a general factor model yielded no appropriate fit ($\chi^2(275) = 1929.03$, $p < .001$; NFI = .462; CFI = .493; RMSEA = .147, 90 %CI [.141–.154]). The latent common method factor explained 2 % of variance. Thus, it seems unlikely that the pattern of results is due to a common method bias.

Discussion

The present study examined the relationship of geriatric care setting and nurses' intention to leave the job and the profession by accounting for opposing indirect relationships of job characteristics, social variables, job satisfaction, and health as proposed by recent turnover models (Gao et al. 2014; Wendsche et al. 2014). Although past research revealed differences in job characteristics and social variables between home care and nursing homes, the question remained as to why both care settings do not differ in their turnover rate, as was also the case in our study. Results confirmed the predictive role of several antecedents of turnover intention with job satisfaction as mediator. However, the proposed serial mediation paths between care setting and intention to leave were only partly confirmed with social conflicts showing the strongest associations. In line with our hypotheses and previous studies (Simon et al. 2005; Tummers et al. 2013), we found demands (time pressure, social conflicts) to be higher in nursing homes. However, the association of care setting and time pressure was not significant after controlling for other demands and resources. More patients to be taken care of and more severe cases could be reasons for more time pressure in nursing homes (Kromark et al. 2009). Time pressure may lead to more errors, such as nurses forgetting certain tasks or responsibilities. While in home care the nurse may straighten out his/her own mistakes, it is sometimes the co-worker doing this in a nursing home, which again may worsen the atmosphere. In contrast to home care services, nurses in nursing homes work together with others, but cannot choose the people with whom they work. At the same time, the stressful

environment may lead to misunderstandings and tensions in the workplace.

Contrary to our expectations, there were no differences in resources (task identity and support by supervisors or co-workers) between home care and nursing homes. While in nursing homes tasks are split between several nurses and nursing aides, in home care nurses often only carry out selected tasks while other duties are done by the patients themselves or their relatives. We found task identity to be positively related to health and job satisfaction in our study, and thereby an indirect predictor for turnover intention via both mediators (see also Humphrey et al. 2007). This is in line with the Job Characteristics Model (Hackman and Oldham 1976) as well as the Action Regulation Theory (Hacker 2003). In addition, according to the JD-R model (Bakker and Demerouti 2007), task identity was found to buffer the negative relationship of social conflicts with job satisfaction and turnover intention. Katrinli et al. (2009) also emphasised the role of task identity for nursing staff retention. Yet, future research might scrutinise under which conditions task identity acts as mediator or moderator.

In line with the literature (Karantzas et al. 2012), supervisor support showed a significant association with job satisfaction and thus intention to leave in our study. Although research depicted stronger effects of supervisor support on job satisfaction and turnover intention (Ng and Sorensen 2008), it is surprising that co-worker support did not play any role as an antecedent of intention to leave in our sample. Although nurses in home care usually work alone, they can get support without a co-worker or supervisor being physically present, for example by phone (Tourangeau et al. 2014). In line with Coomber and Barriball (2007)—and as expected in Hypotheses H3c and H3d—job satisfaction and intention to leave had a strong association in our study. Surprisingly, health variables played only a minor role in explaining variance in intention to leave, although geriatric care is associated with high physical workloads with high risks to health (Kromark et al. 2009). Nevertheless, staying healthy is an important prerequisite for pursuing the nursing job until retirement; nurses might not base their career decisions on health factors until their health is seriously affected. However, at that point, giving up the nursing profession is often unavoidable. This underlines the need to consider measures regarding maintaining health and work ability (Ihle et al. 2015).

As we were not able to detect our proposed opposing effects, there may be other variables buffering job demands in nursing homes and hence preventing turnover intentions such as collective rest breaks—which are more common in nursing homes (Wendsche et al. 2014). Tummers et al. (2013) found nurses in nursing homes to have better

development and career opportunities, which could influence nurses to stay at their jobs. Alternatively, other negative aspects of work in home care could make nurses want to leave, such as the demands of driving or income instability (Tourangeau et al. 2014). Moreover, contrary to past research (Heinen et al. 2013), we were unable to find notable differences between intention to leave the job and the profession. The question remains whether both constructs can and must be viewed as entirely different qualities of turnover intention besides their conceptual disparity.

Thus far, previous studies investigating the care setting–turnover relationship have neglected a possible differential influence of worker type (registered nurse, nursing aide). In our study, we only found minor relationships with age, weekly working time, time pressure, and task identity, and no moderator effect of job status in the relationship between care setting and turnover intention. As other studies did find differences in job characteristics (Morgan et al. 2002), future studies should address this issue in more detail.

Study limitations and further study directions

First, the number of nurses who had leaving intentions in our sample was lower compared to comprehensive studies focusing on nurse turnover (Hasselhorn et al. 2003; Heinen et al. 2013). Although Flinkman et al. (2010) revealed a large variation (4–54 %) in international studies, there could also be a self-selection bias in our study where participation was voluntary. This also led to a slight overrepresentation of public/non-profit home care services. We aimed to take such effects into account by controlling for ownership in our analyses. Furthermore, we conducted our study with a German sample. However, research suggests differences in leaving intentions between European countries (Hasselhorn et al. 2003; Heinen et al. 2013). Investigating our proposed mechanisms in other cultural contexts will be a task for future research.

Second, in our study, we focused on turnover intention rather than actual turnover. Although studies have found turnover intention to be a strong antecedent of actual turnover behaviour (Griffeth et al. 2000), only longitudinal study designs will clear up this issue. Third, as we derived our data mostly from questionnaires, the results might be affected by common method bias (Podsakoff et al. 2003). However, we did not find statistical indication for such bias. Furthermore, almost all of our measures have been validated by objective criteria (Bullinger 1995; Hasselhorn et al. 2003; Price 1997; Rimann and Udris 1997). Fourth, due to the cross-sectional design, the study results do not allow for causal interpretation, which will need to be addressed by longitudinal studies. Fifth, some variables

were represented by one or two items, such as health, job satisfaction, time pressure, or co-worker support. Although evidence exists that single-item variables can be used for further analysis (Wanous et al. 1997), true values may be more accurate when the construct is derived from several items (Oshagbemi 1999).

Practical implications for nursing management

Prospectively, the importance of home care services will not only increase for patients, but for geriatric nurses as well. A horizontal career change to home care offers several benefits such as more flexibility, which might be better suited for employees with young children and/or those who care for their ageing relatives (Gregersen 2005). Additionally, while there are hardly any vertical career paths in geriatric care, changing to home care enables new chances for learning and gaining competence. For older employees, it is also a chance to introduce their expertise into a new field of work. However, work in home care can still be physically and emotionally demanding, and without further career options (Gregersen 2005). This underlines the need for systematic concepts for personnel and career planning. Furthermore, our results align with past research stressing the importance of well-designed jobs for nurses (Tonges et al. 1998) and the need for improving the social climate at the workplace. Collective rest breaks could be an opportunity to talk about emerging or existing conflicts (Wend-sche et al. 2014). Furthermore, retention strategies improving team work and leadership behaviour have indeed shown to be effective (Lartey et al. 2014).

Conclusions

Present results suggest that organisational context factors should be taken into account when targeting geriatric nursing staff retention. Although there is no obvious (direct) relationship between geriatric care setting and nurses' intention to leave, our study may help to uncover hidden (indirect) tracks in this context. Consequently, addressing underlying mechanisms might increase the success of intervention programmes for reducing nurses' turnover in the health and geriatric care sector. Nonetheless, more research is needed to identify other variables determining nurses' intention to stay in home care and nursing homes.

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Compliance with ethical standards

Conflict of interest The authors declare that they have no actual or potential financial and other conflicts of interest related to the submitted manuscript.

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