Research Article

Appreciating age diversity and German nurse well-being and commitment: Co-worker trust as the mediator

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Abstract   Nursing practice faces the challenges of succeeding with a great diversity of customers and managing a diverse workforce with a wide range of age differences. While age diversity can lead to increased creativity and a greater richness of values and skills, it can also lead to value clashes, disrespect of each other's viewpoints, and increased conflict. As a result, nurses frequently experience stress, work–life imbalance, and a withdrawal from commitment. We propose the injection of positive diversity mindsets (age diversity appreciation) as one remedy. Specifically, we suggest that age diversity appreciation is positively related to nurses' well-being (stress and work–life balance), and also positively related to their team commitment. We further hypothesize that nurses' trust in co-workers mediates the hypothesized relationships. Our survey data of 138 nurses in a large hospital in Germany supported our hypotheses. We discuss both theoretical and managerial implications of our findings in the context of age diversity and nursing work outcomes in hospitals.

Key words   age diversity, commitment, co-worker trust, nurse well-being.

INTRODUCTION

The nursing workforce in many hospitals today is more age diverse than ever. For example, there are as many as four distinct generational age cohorts in active employment in the nursing workforce in developed countries (Sherman, 2006). As age diversity becomes a key element of the nursing landscape, managing an increasingly diverse workforce, while succeeding with a great diversity of customers, is imperative for hospitals. A small but growing number of researchers have begun to study whether, and in what contexts, age diversity might exert its greatest impact on work unit performance (Jackson *et al.*, 2003; Wegge *et al.*, 2008). While the findings from these studies shed light on the effects of age diversity on team or unit outcomes, it is unclear whether and how these findings translate into important individual work outcomes for nursing professionals, such as individual well-being and work commitment (Lim *et al.*, 2010). Furthermore, these findings suggest that both diversity mindsets (age diversity appreciation) and contextual factors (task complexity, group size) are important in predicting individual, unit, and organizational outcomes (Jackson *et al.*, 2003; Wegge *et al.*, 2008). Prior studies that have investigated the mindset variables are, however, rare. Therefore, we aim to bridge these gaps by making the connections between the diversity mindsets and individual work outcomes explicit. We also highlight the

instrumental role of co-worker trust in facilitating the positive impacts of age diversity appreciation on nurse well-being and work commitment.

The present study extends and contributes to this stream of research on age diversity in three important ways. First, we link one type of diversity mindset – age diversity appreciation – to important well-being and commitment outcomes for nursing professionals. This helps in understanding inconsistent patterns in prior research, and provides new knowledge about the relationship between age diversity and individual outcomes. Our findings also potentially offer insight for managers, because we address some burning issues faced by nursing professionals; that the workforce is becoming more age diverse, and stress is increasing. Second, our hypotheses and findings regarding the mediating role of co-worker trust highlight possible psychological mechanisms that help explain how individual nurses internalize a diversity mindset to possibly build positive working relationships and reap positive individual outcomes. Finally, prior research in this area has focused mainly on management teams or employees in the USA. To our knowledge, this is one of the few pioneering studies that link diversity mindset variables to individual work outcomes with a European nursing sample. These findings thus provide critical empirical evidence for the generalizability of research findings to non-management employees.

As we are interested in nurses' "individual" well-being and work commitment; our analysis centers on the individual level. Our investigation and discussion, nevertheless, refer to the context of hospital nursing teams because nursing occurs at the center of tightly-coupled, complex systems that rely on

interconnected teams, and patient care is delivered by multi-disciplinary, multishift teams (Tucker & Edmondson, 2003; Klein *et al.*, 2006).

Literature review and hypotheses

Our investigation starts with the premise that age diversity is a double-edged sword for nursing practice. Nurses of different age groups are able to gain a broader perspective, offer a better representation of patient groups, and make a stronger connection to patients (Wegge *et al.*, 2008). However, age differences represent different training and thinking, communication patterns, and technology competences, which can increase emotional conflict and work stress, and impair performance and well-being (Jackson *et al.*, 2003; Wegge & Schmidt, 2009). Furthermore, obvious social category membership (e.g. age, sex) provides a salient basis for categorizing individuals into in-groups and out-groups (Tajfel & Turner, 1986). An evident division between in-groups ("us") versus out-groups ("them") can lead to stereotyping, in-group favoritism, and out-group hostility, which in turn intensify conflict and stress (Bezrukova *et al.*, 2009). To minimize these undesirable outcomes, recent research suggests the injection of "diversity mindsets" into organizational units as one potential remedy (Lehmann-Willenbrock & Kauffeld, 2008; Wegge *et al.*, 2011). Building on social identity theory (Tajfel & Turner, 1986), social categorization theory (Hogg & Terry, 2000), and social exchange theory (Blau, 1964), we suggest that age diversity appreciation might reduce nurses' stress and increase their work–life balance and work commitment.

When nurses acknowledge, understand, and appreciate age differences, they not only better understand the reasons and benefits of using a diverse team, but also hold a realistic view of working in an age-diverse team. For example, nurses might be prepared to anticipate the challenges and roadblocks of working together, and in turn develop the capability to reconcile and capitalize on age differences. Age diversity appreciation might also impel individual nurses to view each other beyond the obvious surface attributes, such as age, and develop a deeper and fuller understanding of each other. With this kind of understanding, they can find a common identification with each other based on value and beliefs, forging a deeper connection that would cultivate positive interpersonal interactions (Gaertner & Dovidio, 2000). When nurses encounter positive interactions, rather than negative ones (conflicts, tension, or frustration), they will experience less stress and enjoy better work–life balance. Furthermore, by sharing a deeper connection, nurses are motivated to reach agreement and strive actively to coordinate work, exchange information, and clarify points of disagreement (Hogg & Terry, 2000; Haslam & Ellemers, 2005). Ultimately, nurses are also motivated to develop a strong commitment to support each other and their teams. We suggest that age diversity appreciation has positive relationships with nurses' well-being and team commitment:

> Hypothesis 1: A nurse's appreciation of age diversity negatively relates to his or her stress (H1a), but posi-

tively relates to his or her work–life balance (H1b) and to his or her team commitment (H1c).

Our arguments regarding the potential benefits of age diversity appreciation implicitly assume that appreciating age differences helps nurture and preserve goodwill when nurses diverge from each other in views, thinking, and working styles. In a sense, we imply that the "social glue" function of such appreciation is based on trusting relationships, through which nurses with diverse backgrounds come together, improve well-being, and sustain commitment. That is, we suggest a mediated relationship between appreciation, and well-being and commitment, respectively, with trust as a mediator.

Mayer *et al.* (1995, p. 712) define trust as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party". Similarly, we define trust in co-workers (co-worker trust) as one's willingness to be vulnerable to the actions of fellow co-workers, whose behavior and actions one cannot control (Tan & Lim, 2009). We study the horizontal dynamics of trust – co-worker trust, rather than other forms of trust (such as trust in supervisors) – because nurses work intensively with peers, and the co-worker relationship is at the center of nursing and patient care processes (Hofmann *et al.*, 2009).

Social exchange theory stresses that trust is rooted in one's desire to do good for the other, and in the belief that the other will reciprocate (Blau, 1964; Shore *et al.*, 2006). Consistent with the norm of reciprocity, we contend that, despite possible individual differences, co-worker trust is relationship oriented and interaction based: when nurses appreciate one another's differences and hold positive and appreciative views of each other, they will develop a mutual liking and respect for each other (Tajfel & Turner, 1986) and try to reciprocate the positive patterns. For example, an older nurse's caring and confirmative actions might create a sense of indebtedness on the part of a younger nurse. These actions might further lead to the younger nurse's beneficial attitudes and behaviors being directed toward this caring older nurse. Over time, nurses with frequent positive interactions cultivate the norm of, and the belief in, mutual goodwill in supporting each another. According to the trust literature, benevolence (the desire to do good for others) is one of the most important ingredients of a trusting relationship (Mayer *et al.*, 1995). Therefore, age diversity appreciation will help inspire trust in each other, despite surface differences associated with age. With trust in place, employees and organizations can reap a variety of individual and team benefits, including better task performance, more citizenship behavior, less counterproductive behavior, increased team cohesion, greater cooperation, and improved team performance (Dirks & Ferrin, 2002; Ferres *et al.*, 2004; Stajkovic *et al.*, 2009). Furthermore, supportive and trusting interpersonal relationships can promote psychological safety (Edmondson, 1999), allowing nurses to experiment, and perhaps to fail without fearing the consequences, especially in front of the "out-groups". In such instances, nurses likely experience less

stress and maintain positive work attitudes. We thus expect a mediating role of co-worker trust in channeling the positive influence of age diversity appreciation into nurse well-being and team attitude:

> H2: Trust in co-workers mediates the negative relationship between appreciation of age diversity and stress (H2a), the positive relationships between appreciation and work–life balance (H2b), and between appreciation and commitment to the team (H2c), respectively.

METHODS

Data collection and participants

We undertook a survey study of hospital nurses in a multi-service hospital in Germany that treats more than 56,000 inpatients and approximately 100,000 outpatients annually. The hospital comprises 17 clinics, 11 independent clinical departments, and six institutes, including 24 h central emergency departments for both adults and children, a highly-regarded heart center, a neuro-intensive care unit, and orthopedic care. Prior to data collection, two authors worked with the hospital's ethical committee (Betriebsrat des Staedtischen Klinikums Braunschweig, Germany) to address any ethical concerns related to human participants and the use of the study results. We guaranteed that participation would be voluntary and anonymous.

After the ethical committee approved the project, we distributed 200 paper-and-pencil surveys on site to all nurses in four participating departments: heart, thorax, and vascular surgery; internal medicine; the pediatric clinic; and trauma surgery units. The hospital management recommended we investigate these four departments because they involved highly interdependent teams for patient care, and the management viewed them as representative units in terms of age diversity. A total of 138 nurses returned useful surveys, yielding a response rate of 65.2%. The characteristics of the participating nurses in our study are summarized in Table 1. While we hoped to test a possible non-response bias, we were unable to obtain non-participants' records due to the anonymity agreement. Instead, we compared the demographic information of our sample with the hospital's aggregate personnel records from 2010. The comparison showed a similar percentage distribution of age, sex, and hospital tenure; 30% of nurses in this hospital were aged between 30 and 40 years (compared to 29% in our sample), and 35% were between the ages of 40 and 50 years (compared to 34% in our sample). Ninety-three percent of nurses in this hospital were female (also 93% in our sample). The comparisons suggest that our sample does not differ significantly from the overall nurse population of the participating hospital.

Measurement

We used validated instruments to assess the variables of interest. Because all of the study participants were German, and the instruments were validated in German, we used the German version of the instruments in our study. All questionnaire items were answered on a six-point scale, ranging from 1 (completely disagree) to 6 (completely agree). We chose the six-point scale to prevent midpoint bias (Garland, 1991; Baumgartner & Steenkamp, 2001). We used six items by Wegge et al. (2011) to measure age diversity appreciation. A sample item was: "Team climate improves when there are team members from different age groups". Co-worker trust was measured with the German Workplace Trust Survey (Lehmann-Willenbrock & Kauffeld, 2010). A sample item was: "My co-workers do not disclose personal information". Stress was measured with the workplace irritation scale by Mohr et al. (2009). An example item was: "I become grumpy when others approach me". Five items from Peifer et al. (2009) assessed work–life balance. A sample item was: "I am content with the way my priorities are distributed across work and my private life". Finally, team commitment was measured with eight items (Neininger et al., 2010). A sample item was: "I think my team is the best team I could ever work in".

Table 1. Study sample characteristics ($n = 138$)

Age	
Range: 21–58 years	
Mean = 39.85 years	
Standard deviation = 9.74 years	
Sex	
Female	93% (128)
Male	7% (10)
Level of education	
Regular secondary school (Hauptschule)	6.5% (9)
General certificate of secondary education (Realschule)	65.2% (90)
University-entrance or technical diploma (Abitur)	28.3% (39)
Units	
Pediatric care	34.8% (48)
Heart/thorax/vascular surgery	30.4% (42)
Internal medicine	19.6% (27)
Trauma surgery unit	15.2% (21)
Years employed on unit	
< 1 year	4% (5)
1–5 years	15% (21)
5–10 years	15% (21)
> 10 years	65% (90)
Daily amount of time spent with patient contact, on average	
< 2 h per day	10.1% (14)
2–4 h	33.3% (46)
4–6 h	26.1% (36)
6–8 h	25.9% (35)
> 8 h per day	2.2% (3)
Average duration of patient contacts	
< 15 min	33.3% (46)
15–30 min	42% (58)
30–60 min	15.9% (22)
1–2 h	2.2% (3)
> 2 h	3.6% (5)
Private care responsibilities (e.g. caring for elderly relatives or children)	
Yes	53.6% (74)
No	46.4% (64)

Control variables

We included nurses' age, sex, hospital tenure, and department as control variables, as they could have influenced nurses' well-being and work attitudes. For example, senior nurses with a longer hospital tenure might enjoy greater organizational power to gather necessary resource, and therefore experience less stress at work. Given the small size of our sample, we eliminated other potential control variables (including hospital teaching status, patient acuity, and highest level of intensive care) in our model testing.

RESULTS

Table 2 reports the means, standard deviations, intraclass correlation coefficient (ICC) values, and correlations for all variables. In general, our results showed significant correlations between dependent and independent variables. All variables showed high internal consistency (Table 2). As age, organizational tenure, and hospital department had no significant correlation with any of the dependent variables, they were not considered any further in the analysis. We added sex (coded as 1 = male and 2 = female) as a control variable for regression analyses concerning work–life balance as an outcome, as it showed a significant correlation with work–life balance

To test the relationships between appreciation, co-worker trust, and nurses' well-being and commitment, we followed Baron and Kenny's (1986) three-step regression procedure. We first examined the relationships between appreciation and nurses' well-being (stress and work–life balance) and team commitment, respectively. As the step 1 results in models 1, 2, and 3 (Table 3) show, age diversity appreciation had a significant relationship with stress ($\beta = -0.24$, $P < 0.01$), work–life balance ($\beta = 0.24$, $P < 0.01$, when controlling for sex), and team commitment ($\beta = 0.70$, $P < 0.01$) in the predicted direction, respectively, which supported hypotheses 1a, 1b, and 1c. The step 2 result in model 4 showed a significant positive relationship between appreciation and trust ($\beta = 0.71$, $P < 0.01$). Finally, in step 3, we examined nurses' stress, work–life balance, and team commitment, respectively, when both appreciation and trust were added to the regressions. According to the model 1 result in step 3, the coefficient for trust was statistically significant in predicting stress ($\beta = -0.40$, $P < 0.01$), while the coefficient for appreciation became insignificant ($\beta = 0.04$, $P > 0.10$), a clear indicative of complete mediation. The Sobel test further confirmed this mediation relationship (Sobel $t = 4.38$, $P < 0.01$), and supported H2a. Model 2 in step 3 reveals a similar pattern, such that trust remained statistically significant in predicting work–life balance ($\beta = 0.39$, $P < 0.01$), and the coefficient for appreciation became insignificant ($\beta = -0.03$, $P > 0.10$). The Sobel test ($t = 4.38$, $P < 0.01$) also confirmed this mediation and supported Hypothesis 2b. The model 3 result in step 3 revealed that both coefficients of appreciation ($\beta = 0.31$,

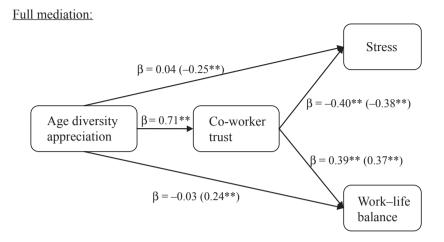**Table 2.** Means, standard deviations, ICC, internal consistency, and intercorrelations

	Mean	Standard deviation	ICC (1)	ICC (2)	(1)	(2)	(3)	(4)	(5)
(1) Age diversity appreciation	4.42	0.96	0.13	0.81	(0.92)				
(2) Co-worker trust	4.11	0.86	0.14	0.81	0.71**	(0.92)			
(3) Stress	2.72	1.07	0.03	0.48	−0.25**	−0.38**	(0.89)		
(4) Work–life balance	4.07	0.97	0.06	0.65	0.24**	0.37**	−0.57**	(0.78)	
(5) Team commitment	3.95	1.09	0.17	0.85	0.70**	0.77**	−0.33**	0.30**	(0.94)

Pearson's correlations (two tailed). Diagonal value in parentheses shows internal consistency (Cronbach's α). $N = 138$. ** $P < 0.01$. ICC, intraclass correlation coefficient.

Table 3. Regression results for the relationships between age diversity appreciation and stress, work–life balance, and team commitment via trust in co-workers

	Stress model 1	Work–life balance model 2	Dependent variable Team commitment model 3	Co-worker trust model 4
Independent variable				
Step 1				
Age diversity appreciation	−0.25**	0.24**	0.70**	
Step 2				
Age diversity appreciation				0.71**
Step 3				
Age diversity appreciation	0.04	−0.03	0.31**	
Co-worker trust	−0.40**	0.39**	0.56**	

Results are β regression coefficients. *$P < 0.01$; **$P < 0.01$.

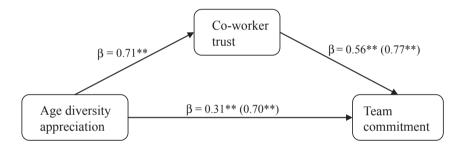Full mediation:

Partial mediation:

Figure 1. Mediation effects. Numbers in parentheses show coefficients prior to entering co-worker trust as a mediator. Sex was simultaneously entered as a control variable when analyzing work–life balance as an outcome variable. *$P < 0.05$; **$P < 0.01$.

$P < 0.01$) and trust ($\beta = 0.56$, $P < 0.01$) were significant in predicting team commitment, when they were included in the regression model, simultaneously. The coefficient of appreciation in predicting team commitment, however, dropped from 0.71 (without trust in the regression model) to 0.31 (with trust in the model). We therefore conducted the Sobel test to investigate whether this change in the coefficient was significant, and whether trust partially mediated the hypothesized relationship. The Sobel result confirmed that the decrease in the regression coefficient of trust was significant (Sobel $t = 9.03$, $P < 0.001$), suggesting a partial mediation relationship. Thus Hypothesis 2c was partially supported. Figure 1 further illustrates these results.

DISCUSSION

The present study shows the usefulness of the construct of age diversity appreciation for understanding individual nurses' well-being (stress and work–life balance) and commitment to teams. By providing initial support for the positive relationships between age diversity appreciation, and nurse well-being and commitment, respectively, we broaden recent research on age diversity by stressing a mindset construct (age diversity appreciation) as an important ingredient in creating a coherent positive climate in hospitals. We also

suggest co-worker trust as an important pathway that connects age diversity appreciation and nurse well-being and team commitment. Consistent with our hypotheses, we found that co-worker trust fully mediated the positive relationship between appreciation and nurse well-being, and partially mediated the positive relationship between appreciation and team commitment. Together, the findings provide suggestive, but not conclusive, evidence for the important roles of age diversity appreciation and co-worker trust in coping with age-diversity challenges and influencing nurse well-being and work attitudes.

Our findings have several important theoretical implications. First, consistent with the literature on co-worker trust (Ferres *et al.*, 2004; Tan & Lim, 2009) and psychological safety (Edmondson, 1999), our findings for the fully-mediated relationships between appreciation, co-worker trust, and nurses' well-being confirmed the important role of trusting relationships in nursing practice. Different from the studies that focus on psychological safety and trust climate at the group level, we regard co-worker trust as an individual perceptual variable, and strive to underpin specific psychological mechanisms through which individual opinions, attitudes, and feelings develop and unfold.

Second, we found age diversity appreciation to show a strong correlation with team commitment, even after

controlling for the effect of co-worker trust. One possible explanation is that while appreciation and trust are both important to nurses' commitment, age diversity appreciation is something beyond co-worker trust, but central to team commitment. This further supports the construct validity of age diversity appreciation (Wegge & Schmidt, 2009). An alternative explanation might also be that as we included co-worker trust as the only mediator in the study, we might have yet to identify other mediators to better understand the pathways from age diversity appreciation to team commitment. For example, a subordinate identity shared by nurses of different ages might mediate the processes. Future studies should investigate other variables to better understand the effects of diversity appreciation on individual work attitudes, and the psychological processes of how these effects occur.

Our findings also have some implications for nurse managers. First, our results suggest that appreciation of the rich mosaic of age differences within the workforce might sustain nurses' motivation and well-being. While it seems premature to make the direct inference between age diversity appreciation and patient safety, negative consequences of lacking such appreciation might surface when nurses start to make more mistakes because of burnout and disengagement. Second, our insights into the fully-mediated relationships suggest that trust in co-workers might serve as an important psychological mechanism that allows employees to internalize the effects of a positive diversity mindset and helps to create a positive environment. These findings are consistent with the commonly-shared wisdom; creating a trusting and "safe" environment is extremely important for high-reliability organizations, such as hospitals, which are characterized by task ambiguity, volatility, and high stakes, such as human lives and by salient power hierarchies (Hofmann *et al*., 2009). Imagine a diverse nursing team in a large hospital. Expressing work-relevant thoughts and feelings can be unexpectedly difficult, because members usually have different opinions about a particular issue, and those thoughts stand a chance of conflicting with the views of others. Unless members trust in each other's goodwill, it is natural for young and inexperienced nurses low in the hierarchy to take the path of "silencing", which unfortunately sets members apart and threatens patient safety. Finally, while age diversity appreciation and trust help mitigate the challenges imposed by age diversity and hospital contexts, we caution against taking appreciation and trust as a given.

We also acknowledge several limitations in our results. First, we refrain from generalizing our findings because of a small sample size, and all participants were employed in one German hospital. Second, the data were cross-sectional in nature, implying a possible issue with reciprocity, and limiting our ability to infer causality and directionality in the examined relationships. For example, does age diversity appreciation predict trust, or does trust predict appreciation? A similar analysis with longitudinal data is needed to disentangle potentially-reciprocal relationships between the variables. Third, we only investigated the relationships between the constructs at the individual level, without adopting a multilevel approach. Arguably, there are unit-level influences that explain these relationships. However, we are particularly interested in nurses' individual outcomes that are central to nursing professionals and try to capture individual-level processes that are almost invariant across contexts. This approach is consistent with the advice specified in Kozlowski and Klein (2000) that "the endogenous construct, or dependent variable, drives the levels, constructs, and linking processes to be addressed by the theory" (p. 12). Also, to our knowledge, our study is one of the first attempts to study a diversity mindset and its relationships with important individual outcomes. When tackling phenomena previously unexplored in the literature, it is helpful to initially act as if the phenomena occur at only one level of theory and analysis (Kozlowski & Klein, 2000). We, therefore, temporarily restrict our focus to individual variables, putting off consideration of multilevel processes during our study design. Further, the ICC values (Table 2) suggest that only a small amount of variance in the individual scores of our dependent variables was accounted for by the different units. For example, only 3% in reported stress and 6% in work–life balance were accounted for by unit-level effects, respectively (see Bliese, 2000 for interpreting ICC values). While these theorizing guidelines and findings permitted an individual-level approach in the present study, we acknowledge the necessity of including nursing units in meaningful models in future research. Fourth, other important variables might also impact nurses' well-being and commitment, such as individual differences (personality traits), team characteristics (psychological safety, empowerment), and contextual factors (supervisor support, workload, task complexity). Finally, we collected data from a single source (see Lance *et al*., 2010 for a review). To validate whether age diversity appreciation occurs in nursing teams, and to determine how it impacts individual outcomes, we conducted post-hoc interviews with 11 supervisors, including head physicians, ward managers, and nursing directors in the participating departments. Overall, the interviews substantiated our findings. For example, a few supervisors stated: "There's a great deal of respect for each other. The younger ones look up to the experience of older team members; they often ask for advice" and "The older employees like working together with the youngsters; they've said that several times". The supervisors also emphasized the role of mutual trust for promoting commitment and coping with stress: "I guess how much they trust each other really helps them deal with all that stuff, every day". These sample statements potentially illustrate age diversity appreciation and trust as an important promoter of positive team climate and cooperation. Although the interview data help to mitigate concerns about common source bias, the use of a completely different method for testing our hypotheses would strengthen our confidence in these results.

Conclusion

Hospital nurses play a crucial role in ensuring patient safety, and act as a hospital's frontline against errors or interruptions subverting safety systems. In hospital environments where there is much task ambiguity and volatility, newly adjusting for nursing workforce diversity adds another layer of complexity, and makes nursing work ever demanding.

Creating a positive, nourishing work environment becomes essential to protect nurses against burnout, work–life imbalance, and withdrawal from commitment, all of which potentially threaten patient safety. We propose age diversity appreciation and co-worker trust as two instrumental psychological mechanisms in response to the challenges imposed by diversity and nursing work complexity. Consistent with extant research on trust and psychological safety, age diversity appreciation and co-worker trust help create a climate for sharing positive feelings, thereby improving nurses' occupational well-being (less stress and better work–life balance) and team commitment, which ultimately help sustain safe care and hospital performance.

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CONTRIBUTIONS

Study Design: NLW, SK.
Data Collection and Analysis: NLW, ZL.
Manuscript Writing: ZL, NLW.

REFERENCES

Baron RM, Kenny DA. The moderator–mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *J. Pers. Soc. Psychol.* 1986; **51**: 1173–1182.

Baumgartner H, Steenkamp JEM. Response styles in marketing research: a cross-national investigation. *J. Mark. Res.* 2001; **38**: 143–156.

Bezrukova K, Jehn KA, Zanutto EL, Thatcher SMB. Do workgroup faultlines help or hurt? A moderated model of faultlines, team identification, and group performance. *Organ. Sci.* 2009; **20**: 35–50.

Blau P. *Exchange And Power In Social Life*. New York: John Wiley & Sons, 1964.

Bliese PD. Within-group agreement, non-independence, and reliability: implications for data aggregation and analysis. In: Klein KJ, Kozlowski SW (eds). *Multilevel Theory, Research, and Methods in Organizations*. San Francisco, CA: Jossey-Bass, 2000; 49–381.

Dirks KT, Ferrin DL. Trust in leadership: meta-analytic findings and implications for organizational research. *J. Appl. Psychol.* 2002; **87**: 611–628.

Edmondson A. Psychological safety and learning behavior in work teams. *Adm. Sci. Q.* 1999; **44**: 350–383.

Ferres N, Connell J, Travaglione A. Coworker trust as a social catalyst for constructive employee attitudes. *J. Manage. Psychol.* 2004; **19**: 608–622.

Gaertner SL, Dovidio JF. *Reducing Intergroup Bias: The Common Ingroup Identity Model*. Philadelphia, PA: Psychology Press, 2000.

Garland R. The mid-point on a rating scale: is it desirable? *Market. Bull.* 1991; **2**: 66–70.

Haslam SA, Ellemers N. Social Identity in Industrial and Organizational Psychology: Concepts, Controversies and Contributions. In: Hodgkinson GP, Ford JK (eds). *International Review of Industrial and Organizational Psychology*. Chichester, UK: John Wiley & Sons, Volume 20, 2005. pp. 39–118.

Hofmann DA, Lei Z, Grant AM. Seeking help in the shadow of doubt: the sensemaking processes underlying how nurses decide whom to ask for advice. *J. Appl. Psychol.* 2009; **94**: 1261–1274.

Hogg MA, Terry DJ. Social identity and self-categorization processes in organizational contexts. *Acad. Manage. Rev.* 2000; **25**: 121–140.

Jackson SE, Joshi A, Erhardt NL. Recent research on teams and organizational diversity: SWOT analysis and implications. *J. Manag. Med.* 2003; **29**: 801–830.

Klein K, Ziegert JC, Knight AP, Xiao Y. Dynamic delegation: shared, hierarchical and deindividualized leadership in extreme action teams. *Adm. Sci. Q.* 2006; **50**: 590–621.

Kozlowski SW, Klein KJ. A multilevel approach to theory and research in organizations: contextual, temporal, and emergent processes. In: Klein KJ, Kozlowski SW (eds). *Multilevel Theory, Research, and Methods in Organizations*. San Francisco, CA: Jossey-Bass, 2000; 349–381.

Lance CE, Dawson B, Birkelbach D, Hoffman BJ. Method effects, measurement error, and substantive conclusions. *Organ. Res. Methods* 2010; **13**: 435–455.

Lehmann-Willenbrock N, Kauffeld S. Development and construct validation of the German Workplace Trust Survey (G-WTS). *Eur. J. Psychol. Assess.* 2010; **26**: 3–10.

Lehmann-Willenbrock N, Kauffeld S. Altersheterogene Arbeitsgruppen – Auswirkungen des demographischen Wandels auf die Gruppenarbeit [Age diverse work groups – effects of the demographic shift on teamwork]. In: Jöns I (ed.). *Erfolgreiche Gruppenarbeit [Succesful Teamwork]*. Wiesbaden: Gabler, 2008; 141–148.

Lim J, Bogossian F, Ahern K. Stress and coping in Singaporean nurses: a literature review. *Nurs. Health Sci.* 2010; **12**: 251–258.

Mayer RC, Davis JH, Schoorman FD. An integrative model of organizational trust. *Acad. Manage. Rev.* 1995; **20**: 709–734.

Mohr G, Rigotti T, Müller A. *Irritation Scale for the Assessment of Work-Related Strain*. Oxford: Hogrefe, 2009.

Neininger A, Lehmann-Willenbrock N, Kauffeld S, Henschel A. Effects of organizational and team commitment – a longitudinal study. *J. Vocat. Behav.* 2010; **76**: 576–579.

Peifer C, Maier C, Bauer-Emmel C, Klusemann J. Work–life balance or work–family conflict? A comparison of two coexistent concepts. 2009. Paper presented at the 14th European Congress of Work and Organizational Psychology, Santiago de Compostela, Spain, 13–16 May 2009.

Sherman R. Leading a multigenerational nursing workforce: issues, challenges and strategies. *Online J. Issues Nurs.* 2006; **11**: 2.

Shore LM, Tetrick LE, Lynch P, Barksdale K. Social and economic exchange: construct development and validation. *J. Appl. Soc. Psychol.* 2006; **36**: 837–867.

Stajkovic AD, Lee D, Nyberg AJ. Collective efficacy, group potency, and group performance: meta-analyses of their relationships, and test of mediation model. *J. Appl. Psychol.* 2009; **94**: 814–828.

Tajfel H, Turner JC. The social identity theory of intergroup behavior. In: Worchel S, Austin WG (eds). *Psychology of Intergroup Relations*. Chicago, IL: Nelson-Hall, 1986; 7–24.

Tan H, Lim A. Trust in coworkers and trust in organizations. *J. Psychol.* 2009; **143**: 45–66.

Tucker A, Edmondson AC. Why hospitals don't learn from mistakes: first-order problem solving in service organizations. *Calif. Manage. Rev.* 2003; **45**: 1–18.

Wegge J, Roth C, Neubach B, Schmidt KH, Kanfer R. Age and gender diversity as determinants of performance and health in a public organization: the role of task complexity and group size. *J. Appl. Psychol.* 2008; **93**: 1301–1313.

Wegge J, Schmidt KH. The impact of age diversity in teams on group performance and health. In: Antoniou A, Cooper CL, Chrousus

GP, Spielberger CD, Eysenck MW (eds). *Handbook of Managerial Behaviour and Occupational Health*. Cheltenham Glos: Edward Elgar Publishing, 2009; 79–94.

Wegge J, Schmidt KH, Liebermann S, van Knippenberg D. Jung und alt in einem Team? Altersgemischte Teamarbeit erfordert Wertschätzung von Altersdiversität [Young and old in one team? Mixed-age teamwork requires appreciation of age diversity]. In: Gelléri P, Winter C (eds). *Potentiale Der Personalpsychologie*. Hogrefe: Göttingen, 2011; 35–46.