

Supplemental Materials

A. Study 1

B. Study 3

References

A. Study 1

A1. Polynomial Regression Results

Analytic Strategy

To examine the impact of (in)congruence between actual and ideal health-oriented leader behavior on self-care behavior and LMX, we exploratory conducted polynomial regression analyses and response surface methodology, which allowed us to consider differential effects of (in)congruence of health-oriented leader behavior (Edwards, 2002; Edwards & Parry, 1993). The basic equation for polynomial regression is: $Z = b_0 + b_1X + b_2Y + b_3X^2 + b_4XY + b_5Y^2 + e$. Actual health-oriented leader behavior (X) and ideal health-oriented leader behavior (Y) were included in the first step of the regression analyses. We then added the polynomial terms (i.e., the square of actual health-oriented leader behavior X^2 , the square of ideal health-oriented leader behavior Y^2 , and the product of actual and ideal health-oriented leader behavior XY) to examine if they explain additional variance in the outcomes. We centered the predictors (actual and ideal health-oriented leader behavior) around the midpoint of their respective scales to reduce the potential for multicollinearity and to facilitate calculations and the interpretation of coefficients (Edwards & Parry, 1993). Following recommendations and previous research, we examined the response surfaces when R^2 in this step significantly increased or when at least one of the polynomial terms yielded significance (Edwards, 1994; Kreiner, 2006).

To better understand the nature of the (in)congruence effects, the slopes and curvatures of the lines of congruence and incongruence were inspected (Shanock et al., 2010). The slope of

the line of congruence is described by $a_1 = b_1 + b_2$ and the curvature along this line by $a_2 = b_3 + b_4 + b_5$. The slope of the line of incongruence is described by $a_3 = b_1 - b_2$, and the curvature along this line by $a_4 = b_3 - b_4 + b_5$.

To test the mediating effects of self-care behavior and LMX on the relationship between the (in)congruence of health-oriented leader behavior and exhaustion/work engagement, we used the block variable approach recommended by Edwards and Cable (2009; see also Zhang et al., 2012). We constructed the block variable by combining the five terms (X , Y , XY , X^2 , Y^2) into a single coefficient, while each component of the polynomial regression equation is weighted by their association with the mediator. Then, we regressed the block variable on the mediator to analyze the path “a” between the independent variable and the mediator. In order to analyze path “b” between the mediator and the dependent variable, we regressed exhaustion and work engagement on the mediator after controlling for the five polynomial terms. Then, we calculated the indirect effect (path “c”) of the (in)congruence of health-oriented leader behavior on the dependent variable via the mediator by multiplying path “a” and path “b”. Thereby, using the block variable approach does not change the total variance explained by the five polynomial terms (Edwards & Cable, 2009; Heise, 1972). We used the macro PROCESS to test the significance of the indirect effect by using 5000 bootstrap samples (cf. Hayes, 2018; for a similar approach see Riggs & Porter, 2017; Rupperecht et al., 2016).

To check whether and how many participants had discrepant values between actual and ideal health-oriented leader behavior, we examined the frequencies of actual health-oriented leadership levels over, under and in-agreement with ideal health-oriented leadership levels. Results revealed that 76% of the participants had discrepant values between actual and ideal health-oriented leader behavior (standardized score on one scale that is half a SD above or below that standardized score on the other scale; Shanock et al., 2010). Overall, 37% of the participants indicated higher scores on the actual than on the ideal health-oriented leadership

scale, while 39% had lower scores on the actual than on the ideal health-oriented leadership scale. Hence, analyzing those discrepancies is practically meaningful and verifies the application of polynomial regression analyses.

Results

Table S1 summarizes the analyses to test how (in)congruence relates to self-care behavior and LMX. For self-care behavior as a dependent variable, the incremental variance of the polynomial terms was not significant ($\Delta R^2 = .02, p = .065$), but the interaction between ideal and actual health-oriented leader behavior (XY) yielded significance ($b_4 = 0.13, p = .048$). Therefore, we inspected the response surface. The curve along the line of incongruence was not significant ($a_4 = -0.15, p = .137$) as was the slope ($a_3 = -0.04, p = .835$). Thus, the degree of incongruence between ideal and actual health-oriented leader behavior was not significantly associated with employees' own self-care behavior. The slope along the line of congruence was positive and significant ($a_1 = 0.28, p = .041$) and the curve was not significant ($a_2 = 0.11, p = .263$). Figure S1 shows that when ideal and actual health-oriented leader behavior were in agreement, self-care behavior increased as ideal and actual health-oriented leader behavior increased. That means, the employees reported the highest level of self-care behavior when both ideal and actual health-oriented leadership were high.

The incremental variance of the polynomial terms for LMX as a dependent variable was significant ($\Delta R^2 = .01, p = .030$). The response surface showed a significant and negative curve along the line of incongruence ($a_4 = -0.21, p = .012$). Unexpectedly, the slope along the line of incongruence was also significant ($a_3 = 0.52, p < .001$). Together, these results mean that employees reported lower LMX if ideal health-oriented leadership exceeded actual health-oriented leadership but higher LMX if actual health-oriented leader behavior exceeded ideal health-oriented leader behavior (see Figure S2). The significant positive slope along the line of congruence ($a_1 = 0.27, p = .013$) and the nonsignificant curve ($a_2 = -0.02, p = .842$)

indicate that participants reported better LMX, the more ideal and actual health-oriented leader behavior matched at higher levels.

– Insert Table S1 and Figures S1 and S2 about here –

The results of the mediation models are displayed in Table S2. For self-care behavior as the mediator, the block variable was positively related to self-care behavior (path “a”) and self-care behavior was negatively related to exhaustion (after controlling for the block variable, path “b”). The indirect effect for exhaustion was significant (indirect effect $b_{ind} = -0.13$, $SE = 0.03$, 95% Bootstrap CI [-0.21, -0.07]). However, the association between self-care behavior and work engagement (path “b”) was not significant, resulting in a non-significant indirect effect ($b_{ind} = -0.03$, $SE = 0.06$, 95% Bootstrap CI [-0.17, 0.09]). Thus, (in)congruence between the ideal and actual health-oriented leader behavior showed a positive relationship with employees’ self-care behavior and this, in turn, was negatively related to their exhaustion but not related to their work engagement.

– Insert Table S2 about here –

For LMX as the mediator, the direct relation between (in)congruence (i.e., the block variable) and the mediator LMX was significant (path “a”). LMX, in turn, was significantly negatively related to exhaustion after controlling for the block variable (path “b”). The indirect effect was significantly different from zero and negative for exhaustion (indirect effect $b_{ind} = -0.09$, $SE = 0.04$, 95% Bootstrap CI [-0.17, -0.01]). For work engagement, the indirect effect of (in)congruence on work engagement via LMX was also significantly different from zero and positive (indirect effect $b_{ind} = 0.49$, $SE = 0.11$, 95% CI [0.29, 0.71]), providing evidence for mediation. Hence, (in)congruence between the ideal and actual health-oriented leader behavior was positively related to LMX and this, in turn, was negatively associated with exhaustion and positively with work engagement.

B. Study 3

B1. Vignettes

Participants read a vignette describing a leader who either actively cares about health issues at the workplace (high-health-oriented leadership, HoL, condition), or who hardly cares about health issues (low-HoL condition), or about whom no information was given regarding his/her health-oriented leader behavior (i.e., the control condition). Participants were randomly assigned to one of the three conditions.

Instructions and vignettes were as follows:

“Please imagine being an employee in a medium-sized company in Germany. You are assigned to a new supervisor called T.M. Colleagues who have worked with this leader before, describe T.M. in the following way:

High-HoL-Condition: *“T.M. encourages thinking about problems in new ways and questions assumptions. In doing so, T.M. communicates a clear and positive vision of the future. As a leader, T.M. gives encouragement and recognition to staff. Compared to other leaders in our company, T.M. tries hard to reduce demands by optimizing working procedures and work-life balance (e.g., avoid the expiry of vacation). T.M. often keeps us informed about safety rules and activities of the worksite health promotion. As a leader, T.M. is very concerned about health issues at the workplace.”*

Low-HoL-Condition: *“T.M. encourages thinking about problems in new ways and questions assumptions. In doing so, T.M. communicates a clear and positive vision of the future. As a leader, T.M. gives encouragement and recognition to staff. Compared to other leaders in our company, T.M. hardly tries to reduce demands by optimizing working procedures and work-life balance (e.g., avoid the expiry of vacation). T.M. rarely keeps us informed about safety rules and activities of the worksite health promotion. As a leader, T.M. is hardly concerned about health issues at the workplace.”*

Control Condition: *“T.M. encourages thinking about problems in new ways and questions*

assumptions. In doing so, T.M. communicates a clear and positive vision of the future. As a leader, T.M. gives encouragement and recognition to staff.”

B2. Additional Results

We also conducted moderated regression analyses with mood as covariate (see Table S3). These analyses revealed similar patterns of results, even though the interaction for LMX as dependent variable was only marginally significant. The simple slope analysis showed a stronger relationship between health-oriented leader behavior (i.e., the experimental condition) and LMX for participants with high ideals ($b = 0.41$, $SE = 0.10$, $p < .001$), than for participants with low ideals ($b = 0.10$, $SE = 0.10$, $p = .304$). These findings correspond with the results without mood as control variable. As for the findings without mood as covariate, the results also revealed a non-significant interaction for self-care behavior.

B3. Additional Variables

As the data were collected as part of a broader research project, we added additional measures at the end of the survey. To exploratorily examine the possible influences of third variables, we assessed participants' *value of health* and their *personality* as additional control variables. In addition, we assessed participants' *intention to participate in a health-oriented training course* (e.g., training about relaxation techniques), and how they would rate their *well-being* at that fictitious workplace (exhaustion and work engagement) as additional dependent variables for exploratory purpose only. We specified all hypotheses and exploratory analyses before data collection. For reasons of space and clarity, we did not include them in the main manuscript.

We assessed participants' **personality traits** with the Big Five Scale (Schupp & Gerlitz, 2014). Each of the five personality traits were assessed with three items, measured on a 5-point scale (from 1 = *totally disagree* to 5 = *totally agree*). However, as most of these scales showed only a low reliability (conscientiousness: $\alpha = .50$; extraversion: $\alpha = .86$; agreeableness: $\alpha = .45$; openness: $\alpha = .65$, and neuroticism: $\alpha = .76$), we decided to not

include these scales in our analyses.

To examine if the importance participants attach to the topic health at the workplace influences our results, we also assessed participants' **value of health** with three items of the HoL instrument (Franke et al., 2014). A sample item was "It is important for me to reduce health risks at my workplace." ($\alpha = .76$). All items were rated on a 5-point scale (from 1 = *not at all true* to 5 = *completely true*). As participants in the three experimental conditions did not significantly differ in their value of health ($F[2, 170] = 2.97, p = .054$), we did not control for this variable in our hypothesis tests.

To assess participants' health-promoting behavior at this fictional workplace, we also assessed their **intention to participate in a health-oriented training course** as additional dependent variable. We asked them how likely they would participate in three different health-promoting training courses about "Healthy at work", "Relieve stress – effective stress management" and "Relaxing in a different way - learning different relaxation techniques" ($\alpha = .80$). Participants could indicate the likelihood to participate in such health-promoting training courses on a 5-point scale (from 1 = *not likely at all* to 5 = *most likely*).

In addition, participants were asked to imagine that they would have worked together with this leader for ½ year and should then rate their **well-being**. We measured participants' well-being at this fictional workplace using the burnout subscale **exhaustion** (8 items; OLBI; Demerouti et al., 2003; Halbesleben & Demerouti, 2005; $\alpha = .87$) and **work engagement** (9 items; UWES-9; Schaufeli et al., 2006; $\alpha = .93$).

The results of the additional analyses with intention to participate in a health-oriented training course, exhaustion and work engagement as dependent variables can be found in Table S4. The results revealed a non-significant moderation for intention to participate in a health-oriented training course ($b = -0.15, SE = 0.15, p = .306$), whereas the moderation for exhaustion was significant ($b = -0.16, SE = 0.07, p = .024$) and for work engagement marginally significant ($b = 0.22, SE = 0.14, p = .095$). Simple slope analyses revealed that

employees with high ideals showed a stronger relationship between actual health-oriented leader behavior (i.e., the experimental condition) and exhaustion ($b = -0.42$, $SE = 0.09$, $p < .001$) and work engagement ($b = 0.55$, $SE = 0.16$, $p = .001$) compared to employees with low ideals (exhaustion: $b = -0.09$, $SE = 0.09$, $p = .283$; work engagement: $b = 0.11$, $SE = 0.16$, $p = .508$).

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Table S1

Polynomial Regression Results in Study 1

	Self-Care Behavior <i>b</i> (<i>SE</i>)	LMX <i>b</i> (<i>SE</i>)
Intercept	3.52 (0.26)***	2.78 (0.21)***
Gender	-0.08 (0.10)	0.02 (0.09)
Contact Intensity	-0.00 (0.04)	0.19 (0.03)***
Leader Gender	0.08 (0.10)	0.25 (0.08)**
Actual HoL Behavior	0.12 (0.09)	0.40 (0.08)***
Ideal HoL Behavior	0.16 (0.13)	-0.12 (0.10)
Actual HoL Behavior ²	0.06 (0.04)	-0.08 (0.03)*
Actual X Ideal HoL Behavior	0.13 (0.07)*	0.10 (0.05)†
Ideal HoL Behavior ²	-0.08 (0.07)	-0.04 (0.06)
<i>R</i> ²	.12***	.56***
ΔR^2	.02 †	.01*
Line of Congruence		
Slope (<i>a</i> ₁)	0.28 (0.13)*	0.27 (0.11)*
Curvature (<i>a</i> ₂)	0.11 (0.09)	-0.02 (0.08)
Line of Incongruence		
Slope (<i>a</i> ₃)	-0.04 (0.17)	0.52 (0.14)***
Curvature (<i>a</i> ₄)	-0.15 (0.10)	-0.21 (0.08)*

Notes. Unstandardized coefficients reported. HoL Behavior = Health-Oriented Leader Behavior; LMX = Leader-Member Exchange. Gender: 1 = female, 2 = male.

ΔR^2 refers to the change in explained variance attributable to the inclusion of the nonlinear terms (Actual HoL Behavior², Actual X Ideal HoL Behavior, Ideal HoL Behavior²).

†*p* < .10, **p* < .05, ***p* < .01, ****p* < .001.

Table S2

Results from Tests of Direct and Indirect Effects of (In)congruence of Health-Oriented Leader Behavior on Exhaustion and Work Engagement with LMX and Self-Care Behavior as Mediator in Study 1

Path type	Mediator: Self-Care Behavior		Mediator: LMX	
	Exhaustion	Work	Exhaustion	Work
		Engagement		Engagement
Direct effect of (in)congruence on mediator (path “a”)	0.62 (0.10)***	0.62 (0.10)***	0.80 (0.05)***	0.80 (0.05)***
Direct effect of mediator on dependent variables (path “b”)	-0.21 (0.04)***	-0.05 (0.10)	-0.11 (0.05)*	0.61 (0.11)***
Indirect effect of (in)congruence via mediator (path “c”)	-0.13 (0.03)	-0.03 (0.06)	-0.09 (0.04)	0.49 (0.11)
95% bootstrapped confidence intervals for the indirect effect	(-0.21, -0.07)	(-0.17, 0.09)	(-0.17, -0.01)	(0.29, 0.71)

Notes. Unstandardized coefficients are reported. LMX = Leader-Member Exchange. Gender, contact intensity and leader gender as control variables.

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table S3

Results of the Moderated Regression Analyses with Mood as Covariate in Study 3

	Self-Care Behavior <i>b (SE)</i>	LMX <i>b (SE)</i>
Intercept	3.47 (0.24)***	2.59 (0.20)***
Mood	0.14 (0.06)*	0.25 (0.05)***
Condition	-0.08 (0.07)	0.26 (0.06)***
Ideal HoL Behavior	0.10 (0.09)	-0.12 (0.07)
Actual X Ideal HoL Behavior	-0.02 (0.10)	0.15 (0.09) [†]
<i>R</i> ²	.04	.28***

Notes. Unstandardized coefficients reported. HoL Behavior = Health-Oriented Leader Behavior; LMX = Leader-Member Exchange.

[†] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table S4

Results of the Moderated Regression Analyses for the Additional Dependent Variables in Study 3

	Participation in health- promoting training course <i>b (SE)</i>	Exhaustion <i>b (SE)</i>	Work Engagement <i>b (SE)</i>
Intercept	3.11 (0.08)***	2.22 (0.04)***	5.19 (0.07)***
Condition	-0.01 (0.10)	-0.26 (0.05)***	0.33 (0.09)***
Ideal HoL Behavior	0.53 (0.13)***	0.13 (0.06)*	-0.09 (0.12)
Actual X Ideal HoL Behavior	-0.15 (0.15)	-0.16 (0.07)*	0.22 (0.14)†
<i>R</i> ²	.10*	.19***	.09*

Notes. Unstandardized coefficients reported. HoL Behavior = Health-Oriented Leader Behavior.

†*p* < .10, **p* < .05, ***p* < .01, ****p* < .001.

Figure S1

Response Surface Graphs Showing the Relationship of (In)Congruence between Ideal and Actual Health-Oriented Leader Behavior with Self-Care Behavior in Study 1.

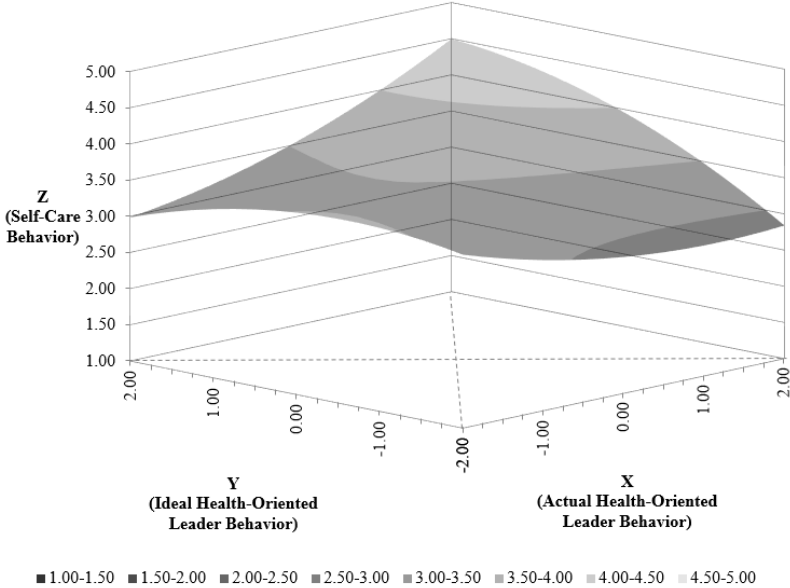


Figure S2

Response Surface Graphs Showing the Relationship of (In)Congruence between Ideal and Actual Health-Oriented Leader Behavior with LMX in Study 1.

