

Identifying Patterns of Compassion at Work in Relation to Work-related Outcomes: A Latent Profile Analysis

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Abstract

Suffering is pervasive in workplaces, and compassion is a necessary process in response to employees' suffering. To date, researchers have considered the definition of compassion at work and how compassion benefits sufferers. However, this variable-centered perspective ignores the possibility that there may exist subpopulations of employees who vary in combined perceptions of compassion at work. To address this issue, we examined compassion at work from a person-centered perspective using a sample of 636 employees in China's mainland. Using latent profile analysis, we identified four types of compassion at work profiles: high-compassion, low-compassion, high-lack of compassion, low-lack of compassion. We also found that these profiles differentially predicted several employee outcomes (employee well-being, emotional exhaustion, work engagement, and turnover intentions). Our results bring new insights into the nature of this construct and show how different employees may have distinct combinations concerning the perception of compassion at work and how these profiles associate with employee outcomes distinctively.

Keywords

Compassion at Work; Employee Well-Being; Turnover Intentions; Latent Profile Analysis.

1. Introduction

Compassion is one of the most fundamental yet often neglected aspects of organizational life [1]. Be it personal or work-related, organizations' employees will inescapably suffer for various reasons, and when such pain is paid attention to or responded to, compassion occurs [2]. Whereas organizational life is stressful, complicated, and beyond anyone's total control, compassion at work can make employees feel "seen" or "understood" and realize that they are not alone [3,4]. Thus, despite being the source of "pain," the organization can also be a place of "healing" for its employees. For employees, the care they feel can come from different levels of the organization: the organization provides support at the level of system and policy, or the immediate supervisors help buffer and transform their pain, or the colleagues listen to their troubles patiently and offer empathetic responses. All these compassionate acts will enable them to survive life's vicissitudes.

Many studies have shown that compassion is a positive and powerful force significantly associated with a range of positive attitudes, behaviors, and feelings [5,6]. First of all, compassion can affect employees' emotions. For example, compassion can help employees recover from adversities more quickly, encourage employees to express their inner thoughts,

call up positive emotions, reduce anxiety [6,7,8]. Other studies have shown that compassion plays a potentially positive role in reducing emotional exhaustion [9]. Secondly, compassion can influence the employees' attitudes. For instance, it has been found that employees who exhibit compassionate behaviors may have "compassion satisfaction," that is, satisfaction with their helping behaviors [10]. Moreover, compassion will make employees have a positive experience, thus increasing perceived organizational support, resulting in higher job satisfaction and affective commitment [11]. Last but not least, compassion can influence employee behavior. For example, research suggests that those who have witnessed compassion tend to take less punitive action against others unrelated to the compassion episode who have transgressed in some way [12]. Those employees who feel compassion from the organization are more likely to have caring or supportive behaviors for others [13]. That is, compassion is transitive [14].

Compassion plays a vital role in both the organization itself and the people in it. In previous studies, the measurement of compassion at work mainly relies on qualitative assessment and self-report. The most common instrument is the 3-item questionnaire developed by Lilius and his colleagues [6]. However, this questionnaire did not focus on the sources of compassion at work and failed to independently examine the different sources of compassion. In actual organizational settings, the compassion that employees perceive can derive from different sources: organization, supervisors, and colleagues. These three types of compassion may form various combinations and affect work-related outcomes. For instance, some employees may perceive compassion from their organization at high levels and lower compassion levels from their supervisor and colleagues. Others may perceive low levels of compassion from all sources, whereas those who are the luckiest may perceive high levels of compassion. These differences may affect employees' emotions, attitudes, and behaviors in distinct ways and suggest that different combinations of compassion at work might exist.

In the field of organizational behavior, scholars assess constructs at a general level and test their relationships with antecedents and consequences using a variable-centered method. However, this kind of approach often emphasizes linear relationships, ignores the potential for variables to combine in unique ways to shape outcomes, neglects the possibility that different individuals may combine them in various ways [15]. For investigating such a possibility, we need a person-centered approach to explore the presence of distinct subgroups of compassion at work that distinctively combine compassion from their organization, supervisor, and co-workers. Moreover, by identifying different combinations, insight can be gained into how these profiles relate to employee outcomes.

Latent Profile Analysis (LPA), an analytic strategy that focuses on identifying latent subpopulations, has received growing attention in organizational sciences in recent years. The basic assumption of LPA is that "people can be typed with varying degrees of probabilities into subpopulations that have different profiles of personal and environmental attributes" [16]. According to Spurk and his colleagues [16], comparing traditional, non-latent clustering methods, LPA has specific advantages as follows: (a) individuals are classified into clusters based upon membership probabilities estimated directly from the model; (b) variables may be continuous, categorical (nominal or ordinal), counts, or any combination of these; and (c) demographics and other covariates can be used for profile description [17].

To date, there is no single study that applies LPA to examine the existence of different profiles of compassion at work. Our study makes two primary contributions to the compassion literature in light of this unexplored area of compassion at work research. First, we employed latent profile analysis to explore the potential existence of distinct latent profiles of compassion at work. Adopting a person-centered approach allows us to identify how combinations of compassion at work influence different subpopulations. Second, to examine their relationships, we linked these profiles to several employee outcomes (i.e., employee well-being, emotional

exhaustion, work engagement, and turnover intentions). These analyses reveal new insights about which combination of compassion might be more or less beneficial for employees. Therefore, we have advanced compassion at work research by providing insight into the nature of this construct and identifying different patterns of compassion at work among employees.

2. Method

2.1. Participants and Procedure

We distributed an online questionnaire via an online survey to full-time workers. A total of 723 questionnaires were received, of which 636 were valid, with an effective rate of 87.97%. This sample included 154 participants employed in the public sectors (24.2%), 258 employed in the private sectors (40.6%), and 224 employed in other kinds of organizations (35.2%). The average age was 28.95 years ($SD=6.91$), with participants having worked with their current company for 5.96 years on average ($SD=6.84$). Twenty-three participants (3.6%) had a high school diploma, 86 had a vocational training certificate (13.5%), 386 had a bachelor's degree (60.7%), and 141 had a master's or doctor's degree. Overall, our sample was representative concerning gender and the types of organization.

2.2. Measures

2.2.1. Compassion at Work Scale

Thirty-two items (Overall $\alpha=0.90$) from the Compassion at Work Scale developed by Xu in 2021 [18]. Compassion at Work Scale were used to assess compassion at work on a 5-point scale (1= strongly disagree; 5= strongly agree). This scale had three subscales, there were 11 items ($\alpha=0.94$) measured compassion from an organization, 11 items ($\alpha=0.93$) measured compassion from the supervisor, and 10 items ($\alpha=0.91$) measured compassion from co-workers. An example item was "My organization arranges regular medical check-ups for its employees."

2.2.2. Employee Well-Being Scale

Six items ($\alpha=0.90$) from Employee Well-being Scale compiled by Zheng et al. in 2015 [19] were used to assess employee well-being on a 5-point scale (1= strongly disagree; 5= strongly agree). An example item is "For me, my job is a meaningful experience."

2.2.3. Work Engagement Scale

Nine items ($\alpha=0.94$) from the Work Engagement Scale compiled by Schaufeli et al. in 2002 [20] were used to assess work engagement on a 7-point scale ((1= never; 5= always). An example item is "I am passionate about my job."

2.2.4. Emotional Exhaustion

Six items ($\alpha=0.90$) from Maslach Burnout Inventory-General Survey compiled by Schaufeli et al. 1996 [21] were used to assess emotional exhaustion on a 5-point scale (1= strongly disagree; 5= strongly agree). An example item is "I feel emotionally drained by my work."

2.2.5. Turnover Intentions Scale

Three items ($\alpha=0.90$) from Turnover Intentions Scale compiled by Li et al. in 2006 [22] were used to assess turnover intentions on a 5-point scale (1= strongly disagree; 5= strongly agree). An example item is "Recently, I often think about changing my job."

2.3. Analytic Approach

Our statistical analysis was performed using Mplus 7.4 robust maximum-likelihood estimator (MLR). To avoid converging on a suboptimal local maximum, all LPA were conducted using 5,000 random sets of start values and 1,000 iterations, with the 200 best solutions retained for final-stage optimization [23]. We examined seven fit statistics to evaluate models: log-likelihood (LL), Akaike information criterion (AIC), Bayesian information criterion (BIC; [24]),

sample-size-adjusted BIC (SSA-BIC; [25]), Lo-Mendell-Rubin likelihood ratio test (LMR; [26]), bootstrap likelihood ratio test (BLRT; [24]), and entropy. There were no cutoff scores for LPA fit statistics. Instead, the best model had the following fit statistics: (1) LL, AIC, BIC, and SSA-BIC values should be lower in comparison to other profile solutions; (2) entropy should be larger in comparison to other profile solutions; and (3) LMR and BLRT should be significant ($p < .05$); (4) there should be enough individuals in each profile, accounting for 5% more of the sample[27]. Finally, we used the BCH method [28] to examine the differences between correlations of profile combinations and the outcomes.

3. Results

Means, standard deviations, and correlations of variables are presented in Table 1 below the diagonal. Three dimensions of compassion at work were significantly correlated.

Table 1. Means, Standard Deviations and Correlations of All Variables(N =636)

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1.Gender	—	—	—											
2.Age	28.95	6.907	-.087*	—										
3.Tenure	5.96	6.835	-.070	.897***	—									
4.Marital State	—	—	.123**	-.549***	-.483***	—								
5.Supervisor Dimension	3.359	0.863	-.131***	-.088*	-.115**	-.131***	<i>(.935)</i>							
6.Co-Worker Dimension	3.524	0.835	-.048	-.020	-.052	-.134***	.727***	<i>(.928)</i>						
7.Organization Dimension	3.447	0.946	-.148***	-.043	-.073	-.142***	.663***	.621***	<i>(.905)</i>					
8.Compassion at Work	3.441	0.780	-.128***	-.058	-.092*	-.154***	.901***	.871***	.877***	<i>(.959)</i>				
9.Employee Well-being	3.748	0.794	-.130***	.067	.062	-.167***	.602***	.553***	.550***	.644***	<i>(.904)</i>			
10.Work Engagement	3.405	0.910	-.136***	.078*	.063	-.196***	.623***	.577***	.569***	.667***	.834***	<i>(.939)</i>		
11.Emotional Exhaustion	2.859	1.025	.051	-.083*	-.046	.139***	-.331***	-.355***	-.283***	-.362***	-.464***	-.465***	<i>(.905)</i>	
12.Turnover Intentions	2.526	1.167	.076	-.123**	-.093*	.154***	-.345***	-.330***	-.394***	-.406***	-.551***	-.462***	.543***	<i>(.898)</i>

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. On the diagonal (italic) are the reliability of each scale.

3.1. Identification of Latent Profiles

The results of the analyses are shown in Table 2 and graphically displayed in Figure 1. Table3 displays the descriptive information of each latent profile. Table 2 provides the fit statistics for six possible latent profile structures. The results showed that LL, AIC, BIC, and SSA-BIC values gradually decreased from 1-potential profiles to 6-potential profiles. The inflection point of decline appeared in the fourth category (i.e., the range of decline decreased after the fourth category). The Entropy value began to decrease from the five-profile solution, indicating that the classification accuracy was decreasing. Furthermore, LMR was no longer significant from the fifth profile, indicating no significant difference between the fifth and sixth potential profiles. Following Yin et al. (2020) [27], individuals in each profile should account for more than 5% of the sample, while in the four types of models, the probability of each category was above 0.05. Based on the above analysis, we chose a four-profile solution.

Table 2. Fit Statistics for Profile Structures

No. of profiles	FP	LL	AIC	BIC	SSA-BIC	Entropy	LMR (p)	BLRT (p)	Category probability
1	6	-2462.471	4936.941	4963.672	4944.623	---	---	---	---
2	10	-2153.233	4326.466	4371.018	4339.268	0.780	<0.001	<0.001	0.53/0.47
3	14	-2066.528	4161.055	4223.428	4178.979	0.738	0.324	<0.001	0.47/0.31/0.22
4	18	-2006.953	4049.906	4130.100	4072.951	0.807	<0.001	<0.001	0.05/0.41/0.39/0.15
5	22	-1988.758	4021.516	4119.530	4049.682	0.782	0.596	<0.001	0.06/0.05/0.33/0.40/0.16
6	26	-1975.383	4002.766	4118.601	4036.054	0.733	0.270	<0.001	0.17/0.32/0.03/0.27/0.14/0.07

Note. LL= log-likelihood; FP= free parameters; AIC= Akaike information criteria; BIC= Bayesian information criteria; SSA-BIC= sample-size- adjusted BIC; LMR= Lo, Mendell, and Rubin (2001) test; Note. LL= log-likelihood; FP= free parameters; AIC= Akaike information criteria; BIC= Bayesian information criteria; SSA-BIC= sample-size- adjusted BIC; LMR= Lo, Mendell, and Rubin (2001) test; BLRT= bootstrapped log-likelihood ratio tests. Participants in profile structure No.4 were 33, 260, 245, 98 respectively.

Table 3. Descriptive Information per Latent Profile

Profiles	N	Supervisor dimension		Co-worker dimension		Organization dimension	
		M	SD	M	SD	M	SD
1	33	1.918	0.211	1.924	0.182	1.957	0.234
2	260	2.760	0.064	2.990	0.066	2.924	0.077
3	245	3.678	0.060	3.842	0.064	3.709	0.064
4	98	4.570	0.059	4.629	0.053	4.620	0.056

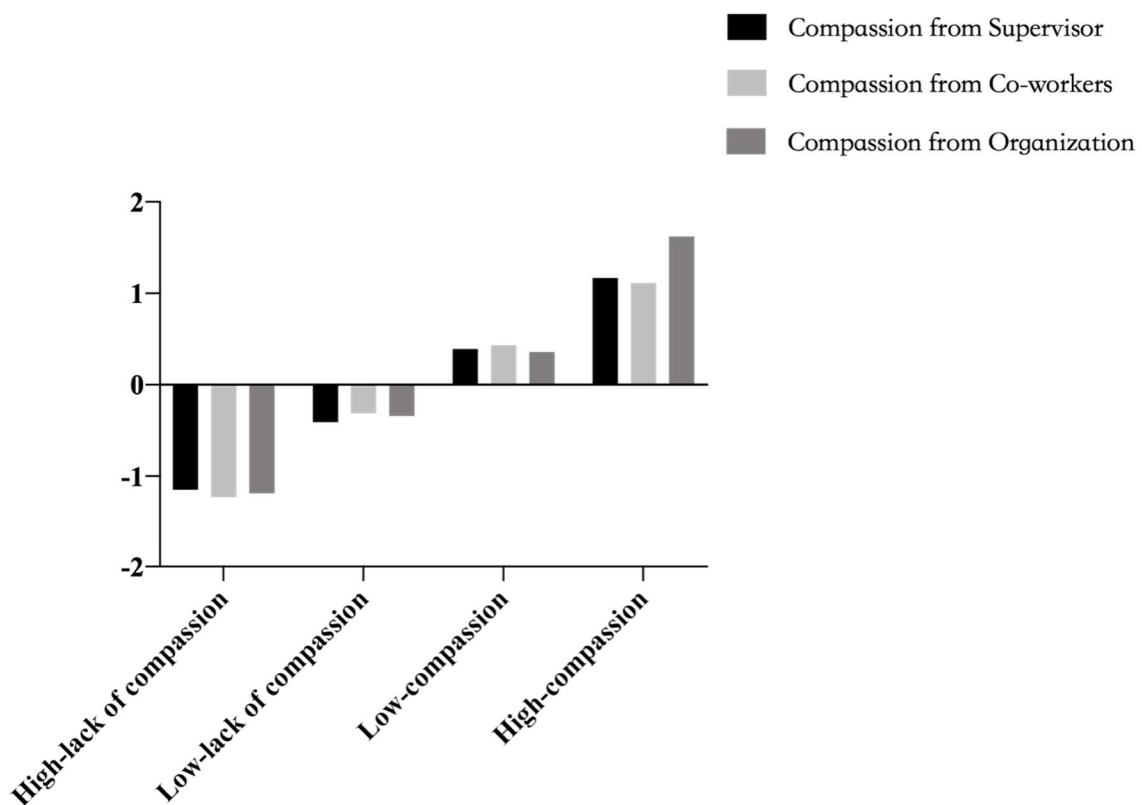


Figure 1. Histogram of four profiles of compassion at work (standardized results, N=636)

We converted the average score of all dimensions of compassion at work of the four potential profiles into Z-score, and Figure 1 displayed the results. The first profile consisted of 33 employees, accounting for 5% of the sample. The three types of compassion at work scores were about -1 standard deviation below the total mean, so the researchers named them the high-lack of compassion. The second potential profile consisted of 260 employees, accounting for 41% of the total population. The three types of compassion at work scores were around 0.5 standard deviations of the total mean, so we named them the low-compassion group. The third potential profile consisted of 245 employees, representing 39% of the sample. The three types of compassion at work scores were all around -0.5 standard deviation of the total mean, so we named them the low-lack of compassion group. The fourth potential profile consisted of 98 employees, accounting for 15% of the sample. The scores of all three types of compassion at work were one standard deviation above the total mean, so we named them the high-compassion group.

3.2. Outcomes of Profiles

Table 4. Differences in Distal Outcome Variables Between Profiles

	High-lack of compassion A	Low-lack of compassion B	Low-compassion C	High-compassion D	χ^2
Well-being	2.866 ^{B,C,D}	3.334 ^{A,C,D}	3.879 ^{A,B,D}	4.758 ^{A,B,C}	522.849 ^{***}
Work Engagement	2.346 ^{B,C,D}	2.929 ^{A,C,D}	3.541 ^{A,B,D}	4.614 ^{A,B,C}	514.440 ^{***}
Emotional Exhaustion	3.443 ^{C,D}	3.123 ^{C,D}	2.879 ^{A,B,D}	1.964 ^{A,B,C}	70.031 ^{***}
Turnover Intentions	3.335 ^{C,D}	2.869 ^{C,D}	2.446 ^{A,B,D}	1.596 ^{A,B,C}	92.079 ^{***}

Notes: N = 636; *p < 0.05, **p < 0.01, ***p < 0.001(two-tailed test).

We used the BCH method [29] to examine the differences among four latent profiles regarding well-being, work engagement, emotional exhaustion, and turnover intentions. The results of the analyses are shown in Table 4. First of all, the overall chi-square statistic indicated significant differences among the profiles in employee well-being. Specifically, there was no significant difference in the well-being scores between the high-lack of compassion group (M = 2.87) and the low-lack of compassion group (M = 3.33). However, well-being scores of the low-compassion group (M = 3.88) were significantly higher than those in the high-lack of compassion and the low-lack of compassion, and the score of the high-compassion group (M = 4.76) was significantly higher than that in the low-compassion group. For employee work engagement, the overall effect of the potential profile is significant. Specifically, there was no significant difference in work engagement scores between the high-lack of compassion group (M = 2.35) and the low-lack of compassion group (M = 2.93). However, the work engagement scores in the low-compassion group (M = 3.54) were significantly higher than those in the high/low-lack of compassion group. The high-compassion (M = 4.61) group scores were significantly higher than those in the low-compassion group.

For the level of emotional exhaustion, the overall effect was tested significantly. Specifically, the emotional exhaustion level of the high-lack of compassion group (M= 3.44) and Low-lack of compassion group (M=3.12) was significantly higher than that of the low-compassion group (M= 2.88) and the high-compassion group (M=1.96). The emotional exhaustion level of the high-compassion group was significantly lower than that of the low-compassion group. The overall effect test of the potential profile is also significant in the score of employees' turnover intention. Specifically, the score of turnover intentions of the low-compassion group (M=2.45)

was significantly lower than that of the low-lack of compassion group ($M= 2.87$) and the high-lack of compassion group ($M=3.34$). In comparison, the score of turnover intentions of the high-compassion group ($M=1.59$) was significantly lower than those of the other three groups.

4. Discussion

Since Frost [30] called for reconsidering organizational theory and business practice to recognize compassion as an essential determinant of organizational life, a growing number of studies have begun to explore the role of compassion in the workplace. However, these studies have predominantly focused on the potential benefits of compassion at work using the traditional variable-centered method. Variable-centered analyses are limited because they assume that all participants were from a single population (i.e., population homogeneity assumption,[31]).

Our study aimed to identify employee profiles based on the levels and sources of compassion at work and to characterize them using the distal outcome variables in a sample of employees from China's mainland. We used a person-centered approach to investigate different profiles of compassion at work and identified four distinct subgroups: high-lack of compassion group, low-lack of compassion group, low-compassion group, and high-compassion group. These four latent subgroups showed the difference in distal outcome variables such as well-being, work engagement, emotional exhaustion, and turnover intentions. Specifically, we found that compassion at work can effectively predict these distal employee outcomes (well-being, work engagement, emotional exhaustion, and turnover intention). Moreover, a low level of compassion at work was associated with higher emotional exhaustion, turnover intentions, and lower well-being and work engagement.

Among our participants, there were 33 employees in the high-lack of compassion group, accounting for 5% of the sample. Those employees who belong to the low-lack of compassion group account for 39% of the total number. There were 260 employees in the low-compassion group, representing 41% of the sample, while the high-compassion group had 98 employees, accounting for only 15% of the total figure. These proportions indicate that the overall level of compassion at work perceived by employees in this study is relatively low in our sample.

Our study has some theoretical implications concerning how employees vary in compassion at work and the associations between profiles and distal outcomes. The first significant implication is that different profiles of compassion at work exist and that most people belong to the low-lack of compassion group. In addition, we found that compassion from supervisors, co-workers, and organizations do not occur in isolation but occur together for most people. Second, our results suggest that employees who perceive higher compassion at work tend to be more engaged in their work, have higher well-being levels. Moreover, higher compassion levels are associated with lower emotional exhaustion and turnover intentions, implying they have better mental health and are more likely to contribute to their work. Third, our results also point out the potential risks of lacking compassion. For example, employees in the high-lack of compassion group have the highest emotional exhaustion, turnover intention scores, and lowest well-being, work engagement scores. Therefore, scholars should bring this issue to attention for its possible harm to employee mental health and organizational productivity.

4.1. Practical Implications

Our study yields several practical implications. First, we identified four different profiles of compassion at work, which helps us understand how different groups of people hold various perceptions of compassion at work. Therefore, organizations could provide a specific type of compassion for employees corresponding to their needs.

Our results also indicated that high compassion profile is most positively associated with employee outcomes. Thus, organizations should notice the importance of compassion at work. Specifically, decision-makers can improve the organization's management system and implement humane practices to foster compassion. For example, organizations should treat every employee as a whole person who has their own emotion, carry emotion into the workplace, implement employee support practices such as Employee Aid Program (EAP), and act in ways that foster compassion.

Through the training of leaders (for example, family-supportive leadership behavior training), organizations can seek to improve compassion from leaders for employees. Organizations can facilitate high-quality relationships by establishing a harmonious organizational atmosphere and emphasizing the organizational culture of mutual help among employees.

4.2. Limitations and Future Directions

Although our study has reached some conclusions, there are still some limitations. Perhaps the most significant limitation is that we collected our data from one sample of young employees in China's mainland. We did not replicate the profiles in another sample, limiting the generalizability of the present study. Therefore, future studies should examine compassion at work profiles in other samples and countries to investigate whether the profiles are the same as that in our study. Second, we relied on self-reports of all study variables, which may pose the risk of common method bias [32]. In addition, we examined only four outcome variables and may not provide a comprehensive view of how compassion at work profiles influence employee attitude and behavior. Future research could adopt a multi-sources study design, collect more outcome variable information from different sources. For example, researchers could use physiological measures of employee well-being or attain outcome variables from supervisors, colleagues of the focal employee. Third, we assessed profile indicators and outcome variables at a single time point, which raises the issue of causality. In future investigations, it might be possible to use a multi-time point study design in which indicator variables and outcome variables are collected in different time points to ensure the robustness of the results.

5. Conclusion

Our study attempted to apply a new analytic lens (LPA) to understand how distinct compassion at work profiles related to employee outcomes. Our study showed that compassion at work occurs in different configurations within employees, with most employees belonging to the low lack of compassion group. Employees with different compassion at work profiles differed in their well-being, work engagement, emotional exhaustion, and turnover intentions. High compassion emerged as the most favorable profile for employee outcomes, whereas high-lack of compassion showed the most detrimental associations with employee outcomes. We demonstrated that (a) different compassion profiles do exist, (b) latent profiles differentiate employee emotions, attitudes, and work states. Our results demonstrate that high compassion can positively affect employee outcomes, whereas lack of compassion can harm employees' mental health and productivity.

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Conflicts of Interest

The authors declare that they have no conflicts of interest to report regarding the present study.

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