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Research Article

Optimism and Dispositional Hope to Promote College Students' Subjective Well-being in the Context of the COVID-19 Pandemic

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Abstract

Coronavirus stress with the restrictions and unexpected life changes has affected individuals and their satisfaction with life. This study aimed to examine the mediating role of optimism and hope on the relationship between coronavirus stress and subjective wellbeing among young adults in Turkey. A sample of 331 (M= 20.86 and 64% females) college students participated in this study. The results demonstrated that coronavirus stress was negatively associated with the college students' sense of hope and optimism. Moreover, coronavirus stress had an indirect effect on subjective well-being through optimism and hope. Optimism and hope mitigated the adverse impacts of stress on well-being during the pandemic. These results indicated that young adults with a high level of stress due to coronavirus have lower optimism and hope, which in turn have less subjective well-being. The study findings hence highlight that being hopeful and optimistic are the potential resources to explain how coronavirus stress is related to subjective well-being.

Keywords: Optimism, hope, life satisfaction, subjective well-being, COVID-19, positive psychology

The novel coronavirus (COVID-19) disease has caused a worldwide pandemic (World Health Organization [WHO], 2020) and it has infected over 117 million people and more than 2 million people have died nationwide since December 2019 (Worldometers, 2020). Although Turkey have taken various restrictions (such as weekend lockdowns, overnight curfews, closure of school and business) to control the pandemic, the number of infected people has reached to about 3 million (Worldometers, 2020). During the pandemic, individuals' lives extensively interrupted as everyday interactions were replaced by long periods of isolation and loneliness (Armigate & Nellums, 2020; Tanhan et al. 2020). Additionally, many people experienced a fear of infection and death, anxiety for their loved one's safety, and stress about the uncertainty of the future (Brooks et al., 2020; Gallagher et al., 2020). Further, schools and businesses were suspended, travels restricted, and maintaining social distance was mandated to reduce the spread of the COVID-19 disease (Gostin & Wiley, 2020). All these unexpected changes combined with financial instability intensified psychological distress (Brooks et al., 2020; Wang et al., 2020) and stress-related disorders such as anxiety, depression (Arslan et al., 2020; Gallagher et al., 2020; Polizzi et al., 2020; Wang et al., 2020), sleep disturbances (Wang et al., 2020), and PTSD (Bao et al. 2020; Liu et al., 2020). Further, current studies reported that the risk of getting coronavirus was linked with death distress and general health (Yıldırım, & Güler, 2020; Yıldırım et al., 2020), however some factors such as positivity, coping skills, and meaning in life have found to be buffered the negative impacts of coronavirus stress on individuals' mental health (Yıldırım & Güler, 2020; Yıldırım et al., 2020; Arslan & Yıldırım, 2021).

As the coronavirus spreads rapidly, the effects of this stress also might have an impact on the individuals'

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subjective well-being, which refers to people's cognitive and emotional evaluation of their life quality and satisfaction (Diener et al., 2003). Although well-being has a role to prevent psychopathology (Arslan et al 2020, Arslan et al., 2020a) and links with better psychological health (Erdogan et al., 2012; Kansky & Diener, 2017) studies show that stress stemming from significant life changes contributed to decreasing in subjective well-being as lower life satisfaction (Fenge et al., 2012; Moksnes et al., 2018; Zheng et al., 2019). Similarly, mental health symptoms including stress, depression, and anxiety have been found to be negatively associated with psychological well-being and perceived life quality (Mangipudi et al., 2020; Saniti et al., 2020; Shamblaw et al., 2021). Subjective well-being is critical for individuals to cope with challenges in uncontrollable life events, however, there is limited knowledge available about the effects of stress on life satisfaction during the COVID-19 pandemic (Shamblaw et al., 2021). Therefore, the present study aims to analyze how perceived stress affects individuals' subjective well-being and identify underlying mediation mechanisms in the association between stress and subjective well-being, in light of the life changes associated with the pandemic.

Hope and Optimism as Mediators

It has been reported that positive psychology attributes, such as optimism and hope, are the factors that predict subjective well-being (Magaletta & Oliver, 1999; Wong & Lim, 2009). Hope is generally defined as the ability of setting goals, generating ways to reach those goals, and having the motivation (agency) to accomplish them (Snyder, 2000). According to Snyder (2002), hope reflects individuals' determination to achieve goals that require devoting mental energy to develop a goal-directed strategy. Hence, hopeful people are seen as persistent in pursuing their goals and undertaking effective actions even when they encounter hardships. Hope also is seen as a powerful source in providing resilience and managing stressful situations (Frederickson, 2001), which involves increased motivation (Nolenhoeksema et al., 2008). Relatedly, hope was found to be a predictor of adaptive coping skills (Folkman, 2013; Kennedy et al., 2012) and life satisfaction (Bailey & Snyder, 2007; Germann et al., 2014; Krause & Edles, 2014; Smedema et al., 2014). Also, higher level of hope was found to be related with higher level of flourishing and lower level of fear of happiness (Belen et al., 2019). Additionally, previous research indicated that hope decreased psychological distress, anxiety, and depression (Long et al., 2020; Trzebiński et al., 2020; Yıldırım & Arslan, 2020). For example, increased hope was found to be linked with lower levels of depression and anxiety (Cuijpers et al., 2013; Sadoughi et al., 2017; Snyder et al., 1991). Further, hopeful individuals reported higher levels of wellbeing (Long et al., 2020; Satici, 2016; Yıldırım & Arslan, 2020).

Optimism is described as a generalized tendency to expect favorable experiences about future events (Scheier & Carver, 1985). According to Carver and his colleagues (2010), optimism provides a better understanding of human behaviors and thoughts. Specifically, optimistic people have a positive outlook, believe good things will happen in the future and are motivated to show effort even in the face of difficulties (Scheier & Carver, 1985). Further, optimistic people can adapt to negative life events and function successfully by using coping strategies (Nes. 2016; Nes & Segerstrom, 2006). In this respect, researchers have found that optimism have been positively associated with adaptive outcomes and well-being including self-esteem, happiness, and life satisfaction (Bastianello et al., 2014; Duy & Yildiz, 2017; Guindon, 2010; Kardas et al., 2019). Similarly, recent studies revealed that a high level of optimism helped to protect mental health, lessen psychological distress, and lower anxiety and depression (Caver & Scheier, 2014; Fischer et al., 2018; Heinitz et al., 2018, Kwok & Gu, 2017). For example, Hirsch and his colleague (2014) showed that optimism had a mediating role on spiritual well-being and depressive symptoms, and more optimism was related to fewer depressive symptoms. Likewise, a recent study also have claimed that optimism have mediated the negative effects of pandemic stress on psychological problems such as anxiety, depression, and somatization (Arslan et al., 2020).

Based on the literature, optimism and hope can be considered as the essential trails in coping with destructive life events by believing in a better future, thereby, optimism and hope may serve as mitigating factors in the association between coronavirus stress and subjective well-being. As individuals are adversely affected by the measures implemented during the COVID-19 pandemic, it is necessary to understand the link between stress and quality of life in such times. Given the literature indicating the impacts of positive psychology variables on wellbeing, we expect that being confident in finding ways to achieve goals and

having a positive outlook, even in difficult times, might be the core aspect of quality of life and happiness. Therefore, the main purpose of this study is to a) examine the association between perceived stress during the pandemic and subjective well-being and b) investigate the mediator role of optimism and hope on the relationship between stress and subjective well-being, which would help clinicians to provide practical implications for promoting well-being and happiness in challenging situations. Specifically, we hypothesized that optimism and hope would mediate the association between the coronavirus stress and subjective well-being among young adults.

Method

Participants

The present study comprised 331 undergraduate students (36% male) from a public university, Turkey. Participants ranged in age between 18 and 35 years (M= 20.86, SD= 3.01). With regards to the socioeconomic characteristics, the majority of participants had moderate socioeconomic status (SES): low SES = 9.7%, moderate SES = 78.5%, and upper SES = 11.7%. Approximately, 50% of participants were under 20 years who have been ordered to stay-at-home because of coronavirus restrictions in Turkey.

Data Collection

A web-based survey was used to gather the data, which was generated using the study scales and demographic items. Before administrating the survey, a consent form was presented to participants, which explained the purpose of the study and informed them about the study process. All students were invited to participate in the study during online distance education. The study was also approved by the second author's institutional review boards.

Measures

Coronavirus Stress Measure (CSM). The CSM is a 5-item self–report measure (e.g., "How often have you been upset because of the COVID19 pandemic?") developed to assess COVID-19 related to stress (Arslan et al., 2020). Each item is rated on a 5-point Likert type scale ranging between 0 (*never*) and 4 (*very often*). A higher score indicates greater stress associated with the COVID-19 pandemic. Research indicated that the scale had a strong internal reliability estimate with the Turkish sample (Arslan et al., 2020). The scale also provided a strong internal reliability estimate with the sample of this study (α = .88).

The Satisfaction with Life Scale (SWLS). The SWLS was used to measure individuals' subjective well-being (Diener, Emmons, Larsen, & Griffin, 1985). The scale is a 5–item self-report rating measure (e.g., "The conditions of my life are excellent") scoring using a 7-point Likert-type scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Previous research revealed that the reliability estimate of the scale was adequate for the Turkish sample (Dağlı & Baysal, 2016). The scale also had a strong internal reliability estimate with the sample of this study, (α = .91).

Dispositional Hope Scale (DHS). The DHS was used to assess hope (Snyder et al., 1991), which is a 12-item rating scale (e.g., "I energetically pursue my goals"). After excluding four filler items, total scores are computed. All scale Items are rated using an 8-point Likert type scale, ranging from 1 (*definitely false*) to 5 (*definitely true*). The measure had strong internal reliability estimates with the Turkish college students (Tarhan, & Bacanlı, 2015). The scale also provided a strong internal reliability estimate with the sample of this study, (α = .95).

Optimism and Pessimism Questionnaire (OPQ-6). The OPM is a 6–item self-report rating scale (e.g., I hope many things will be better in the future") designed to measure the optimism and pessimism of Turkish people (Arslan & Yıldırım, 2020). All scale items are scored using a 5–point Likert type scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Previous research showed that the scales provided strong internal reliability estimates (Arslan & Yıldırım, 2020). In the present study, the optimism subscale was used, and the scale provided s strong internal reliability estimate with the sample of this study, (α = .85).

Analytic Process

Prior to conducting the primary analyses, preliminary analyses were examined including descriptive statistics and correlation estimates for the study variables. The assumption of normality was also checked using the scores of kurtosis and skewness, and their values < |1| are considered as acceptable for a normal distribution (Field, 2013). Pearson product-moment correlation coefficients were examined to explore the associations between the variables in the study. Subsequently, mediation analyses were employed to investigate whether social support and college belonging mediated the relationship between psychological maltreatment and spiritual well-being using the PROCESS macro version 3.5 (Model 4) for SPSS (Hayes, 2018).

Table 1. Descriptive statistics and correlations

	Mean	*SD*	Skew.	Kurt.	α	1.	2.	3.	4.
1. Coronavirus stress	16.65	5.02	-.19	.28	.88	—	–.41	–.38	–.32
2. Hope	45.68	10.79	-.68	-.11	.95		—	.67	.60
3. Optimism	21.72	5.42	-.35	-.64	.85			—	.53
4. Subjective well-being	19.67	7.8	.-03	-.88	.91				—

Note. All correlations are significant at the .001 level (2-tailed).

To examine the significance of indirect effects, the bootstrapping method with 10,000 resamples to estimate the 95% confidence intervals were used (Preacher & Hayes, 2008). All analyses in the study were conducted using SPSS version 25.

Results

Findings from descriptive analyses showed that skewness and kurtosis scores ranged between –.88 and .28 (their values < |1|), which indicated that the study measures had a relatively normal distribution, as seen in Table 1. Further, correlation results revealed that coronavirus stress had moderate and negative correlations with hope, optimism, and subjective well-being. Subjective well-being was also moderately-to-strongly and positively associated with hope and optimism. Descriptive statistics also indicated that all measures provided strong internal reliability estimated with the sample of this study. Descriptive statistics, correlation analysis results and the internal reliability estimates of the study variables are shown in Table 1.

Mediation analyses were conducted to examine mediating effect of hope and optimism on the relationship of coronavirus stress with college students' subjective well-being.

Table 2. Unstandardized coefficients for the mediation model

	Consequent			
	M_1 (Optimism)			
Antecedent	Coeff.	*SE*	*t*	*p*
X(Coronavirus stress)	–.41	.05	–7.42	<.001
Constant	28.53	.95	29.76	<.001
	R^2 = .14			
	F = 54.98; p < .001			
	M_2 (Hope)			
Antecedent	Coeff.	*SE*	*t*	*p*
X(Coronavirus stress)	–.88	.10	–8.15	<.001
Constant	60.35	1.87	32.12	<.001
	R^2 = .17			
	F = 66.52; p < .001			
	Y_1 (Well-being)			
Antecedent	Coeff.	*SE*	*t*	*p*
X(Coronavirus stress)	–.09	.07	–1.29	.194
M_1 (Optimism)	.28	.08	3.64	<.001
M_2 (Hope)	.28	.04	7.13	<.001
Constant	2.13	2.27	.94	.348
	R^2 = .39			
	F = 70.27; p < .001			

Paths	Effect	*SE*	BootLLCI	BootULCI
Total indirect effect	–.36	.04	–.46	–27
Coronavirus stress–>Optimism–> Subjective well-being	–.12	.04	–.19	–.05
Coronavirus stress–>Hope–> Subjective well-being	–.25	.06	–.33	–.17

Note. Number of bootstrap samples for percentile bootstrap confidence intervals: 10,000. *SE* = standard error. Coeff = unstandardized coefficient. *X* = independent variable; *M* = mediator variables; *Y* = outcomes or dependent variables

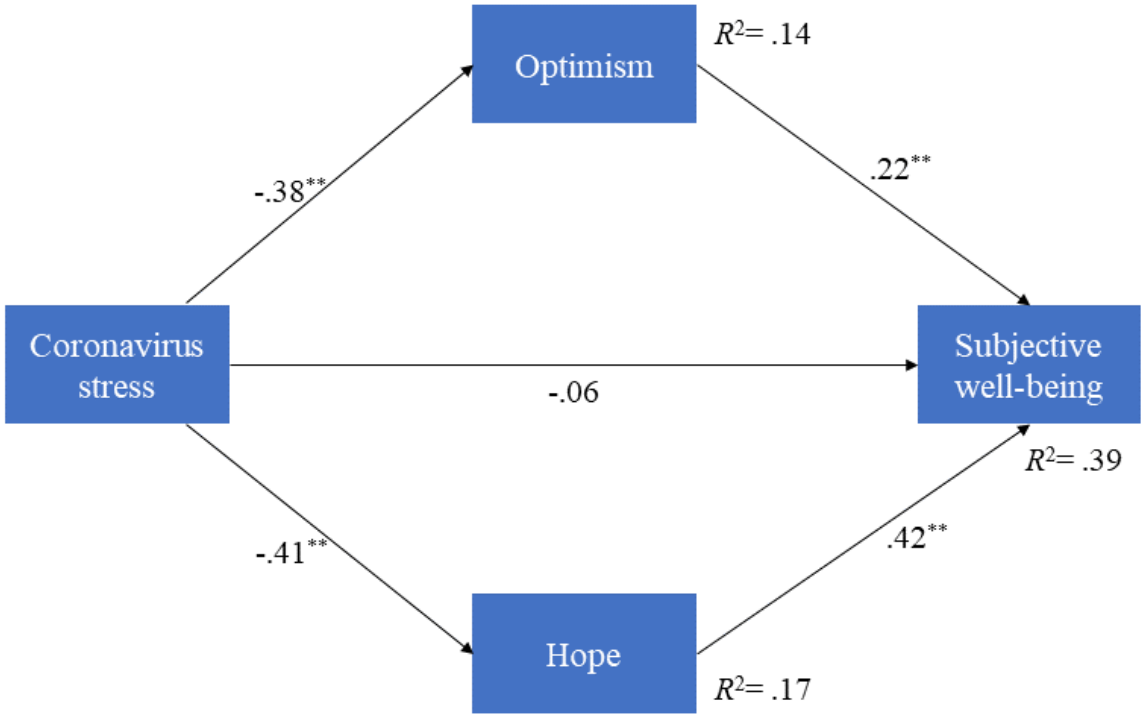

Figure 1. Mediation model indicating the mediating effect of hope and optimism on subjective well-being

Results from mediation analyses revealed that coronavirus stress had a significant and negative predictive effect on college young adults' dispositional hope and optimism, as seen in Figure 1. Coronavirus stress accounted for 17% of the variance in dispositional hope and 14% of the variance in optimism. Additionally, the predictive effect of coronavirus stress on subjective well-being was insignificant yet it had a significant predictive indirect effect on subjective well-being through dispositional hope and optimism among college students. Subjective well-being was significantly and positively predicted by dispositional hope and optimisms. Coronavirus stress, dispositional hope, and optimism, together, accounted for 39% of the variance in subjective well-being. The indirect effects of coronavirus stress on subjective well-being were significant both for dispositional hope (β = –.18 [BootLLCI= –.23 and BootULCI= –.12]) and for optimism (β = –.08 [BootLLCI= –.14 and BootULCI= –.03]). Standardized predictive effects indicating the association between the study variables are also presented in Figure 1. The evidence suggests that dispositional hope and optimism are essential resources to mitigate the adverse impacts of coronavirus experiences on subjective well-being among Turkish college students.

Discussion

The present study provides insights into the understanding of the complex nature of the relationship between coronavirus stress and subjective well-being by exploring the mediating effect of optimism and hope. Findings from this study showed that coronavirus stress had an indirect effect on subjective well-being through college students' sense of hope and optimism. This finding indicated that young adults with a high level of stress due to coronavirus have lower optimism and hope, which in turn have less subjective well-being. As expected, living under quarantine for months with the fear of COVID-19 affected individuals. Thus, understanding the relationship between coronavirus stress and promotive factors may help to explore the impacts of coronavirus stress on well-being, which is important for mental health providers to provide better mental health service during times of pandemics.

The present study indicated that coronavirus stress was a significant predictor of hope, optimism, and well-being. Also, the findings revealed the negative effects of coronavirus stress on hope and optimism. Considering the high amounts of stress and restricted life conditions of individuals due to pandemics, it was expected that people could have unfavorable thoughts and difficulties in controlling emotions, which in turn less hope and optimism. Consistent with the literature, recent studies supported that the COVID-19 pandemic had destructive effects on individuals' mental health and such stress predicts well-being (Arslan et al., 2020; Arslan & Allen, 2021; Yildirim et al., 2020; Wang et al., 2020). Arslan and his colleague (2020) reported that greater coronavirus stress lowers optimism and that

lead to psychological problems. Also, Yildirim and Arslan (2020) found that hope had a direct effect on the improvement of psychological health and well-being during the early stage of the COVID-19 pandemic. Further, hope was found to be associated with reduced pandemic stress and increased well-being by serving as an adaptive mechanism for recovering from stress (Gallagher et al., 2021). Considering these findings, this study supports that coronavirus stress is related to lower levels of hope and optimism, and distressed college students may encounter several challenges in the process of emerging hope and optimism.

Moreover, study results showed the mediation effects of hope and optimism on the relationship between coronavirus stress and subjective well-being. In addition to studies indicating the effects of hope and optimism on psychological health and well-being (e.g., Yıldırım & Arslan, 2020), present study results demonstrated that hope and optimism helped in coping with stress during the COVID-19 pandemic, therefore these adaptive factors may promote satisfaction in life. Hope and optimism are linked with positive psychological health outcomes and wellbeing (Arslan et al., 2020; Brazeu & Davis, 2018), and these factors might support the resilience of young adults and help them in managing stress in pandemics. Former studies also claimed that having hope was an important source of well-being and supports individuals' psychological health (Long et al., 2020; Satici, 2016; Yıldırım & Arslan, 2020). Furthermore, people with greater hope practice more adaptive coping strategies in managing adverse life circumstances (Folkman, 2013; Kennedy et al., 2012), and hope also influence people to adjust their relationship with negative thoughts and emotions by focusing on positivity and that improves their ability to cope with stressful life events (Frederick, 2001), which results in happiness and satisfaction with life. Another explanation might be that hopeful young adults' stress reactions to coronavirus may help them become proactively engaged in their goal pursuits as they would be inclined to be positive and productive in stressful situations (Snyder et al., 2006). Thus, having a sense of hope protects distressed adults' psychological health and it serves to lessen the negative effects of such stressful events on mental health and wellbeing, as indicated in many studies (e.g., Yildirim & Arslan, 2020).

Optimism also had a mitigating role in this study on the association between coronavirus stress and subjective well-being. In other words, optimism provided an adaptive pathway for coping the stressful life events. Consistent with previous research, optimistic individuals had lower mental health problems and better psychological well-being (e.g., Arslan et al., 2020). For example, Carver and Scheier (2014) reported that optimism was associated with a lower level of anxiety and depression, and high levels of well-being. Duy and Yildiz (2017) also showed the predictor role of optimism in life satisfaction. Similarly, increased optimism was found to be related to high self-esteem, affectivity, and subjective well-being (Bastianello, et al., 2014). Additionally, Hirsch et al. (2014) found that optimism mediated the association between spiritual well-being and depressive symptoms. Further, a mediating effect of optimism on the relationship between coronavirus stress and psychological problems was reported in a recent study (Arslan et al., 2020). These results support that optimism is linked with better mental health and wellbeing outcomes. This can be explained by the adaptive role of optimism, which can be considered as a fundamental component of the ability to cope with stress experiences (Nes, 2016; Nes & Segerstrom, 2006) because it involves a positive outlook on life and that motivates individuals to undertake actions even in difficulties (Segerstrom, 2006). Subsequently, optimism evokes favorable feelings and positivity about the future (Carver et al., 2010), and that may lessen the negative effects of coronavirus stress on subjective well-being. To sum up, given the literature supporting that being optimistic and hopeful are the essential traits for better mental health and wellbeing, which might decrease the effect of coronavirus stress on subjective wellbeing and play a mitigating role in this association.

Limitations and Implications

The present study has a few limitations and directions for future research that should be acknowledged. First, the data of the study was gathered from a sample of university students in Turkey, which limits the generalizability of the study findings. Secondly, a cross-sectional design was used to examine the association between the variables in the study, thus, the causality of effects could not be verified. Future research would need to employ the longitudinal research design to understand how hope and optimism mediate the impact of stress on subjective wellbeing. Another limitation of the present study is self-report instruments to measure the study variables. Researchers

could use alternative assessments and data collection methods to decrease subject related biases that could have affected the emerging findings. Lastly, hope and optimism were examined as mediators in the link between coronavirus stress and subjective well-being. There is a need to understand how other factors such as meaning in life, resilience, and self-esteem, which may mediate the adverse impacts of pandemic stress on wellbeing indicators.

Despite these limitations indicated above, the results of the current study suggest implications for practices by providing the association between stress and well-being in pandemic among young adults. Considering the negative implications of stress in pandemic on people's wellbeing and flourishing, exploring the role of promotive factors is a critical step develop intervention strategies to foster subjective wellbeing. The present study results showed that stress experienced in the COVID-19 pandemic is a significant risk for life satisfaction of young adults, however, hope and optimism mediate the impacts of coronavirus stress on college students' wellbeing. Thus, hope and optimism based interventions might be beneficial to help college students in managing stress and in fostering their subjective wellbeing. Therefore, mental health providers could educate students about how to set hope and raise hopeful thoughts. For example, students can be encouraged to generate a list of goals that they would like to achieve. Then they can be asked to visualize the paths to achieve their goals, find alternative routes in the face of adversities, and initiate the required efforts for achievement. Further, working on the imagination of a positive future with the students would increase their motivation and happiness. Intervention programs focusing on raising hope and optimism in those experiencing stress in the pandemic are thus fundamental to enhance the subjective wellbeing of young adults.

In conclusion, the results of the current study indicate that coronavirus stress is a risk factor for young adults' subjective wellbeing and that hope and optimism function as promotive resources mitigating the unfavorable impacts of the coronavirus stress on subjective wellbeing during the COVID-19 pandemic among Turkish young adults.

Compliance with Ethical Standards

Ethical Standards

All study procedures involving human participants followed institutional and/or national research committee ethical standards and the 1964 Helsinki declaration and its later amendments or comparable ethical standards. All procedures were also approved by Mehmet Akif Ersoy University's Institutional Review Board.

Declaration of Conflicting Interests

On behalf of all authors, the corresponding author states that there is no conflict of interest.

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