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# Predicting Social Life Integration Based on Automatic Thoughts and Resilience Among Children and Adolescents

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## Abstract

The present research aimed to examine the associations among automatic thoughts, psychological resilience, and integration into social life. The concept of integration into social life included adaptation, coping, and communication skills. This cross-sectional study was conducted with 450 secondary school students aged between 11 and 15 ($M$=12.65; $SD$=0.86), studying in a state secondary school in Turkey. The research group consisted of 234 female and 216 male students. Social Life Integration Scale, Children's Automatic Thoughts Scale, and Short Psychological Resilience Scale were used as measures. According to the results, there were significant associations among automatic thoughts, psychological resilience, and integration into social life. In addition, social threat, personal failure, and hostility, the sub-dimensions of automatic thoughts, accounted for 26% of the total variance of integration into social life. Generally, automatic thoughts and psychological resilience can provide essential data to understand integration into social life among children. These findings were thought to contain practical information for experts in psychology and education.

**Keywords** Social integration · Resilience · Automatic thoughts · Adolescent

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## Introduction

Adolescence is a period of biological, psychological, and social transitions. It is a growth period in which the transition from the immaturity of childhood to the maturity of adulthood and preparation for the future takes place in all societies. Changes such as gaining physical competence, advanced thinking, subjective decision-making, self-awareness, and independent behavior occur during this period (Coleman, 2023). In addition to these changes, there are some developmental tasks that individuals need to accomplish during adolescence. While fulfilling these developmental tasks, the individual also assumes roles to be an active part of society, such as membership in peer groups, developing a sense of belonging, and increasing social responsibilities (Tudor-Hart, 2023). One of the skills that adolescents need to acquire is social life integration, which is a process that allows individuals to integrate with their family, friends, and group communities in society, strengthens their communication skills, and facilitates coping with problem situations (Kamis & Copeland, 2020). A study conducted with pre-adolescents identified integration into social life as a core concept that combines adjustment, communication skills, and coping styles. The concept indicates how well individuals can adapt to changing life events, how strong their communication skills are, and to what extent they use coping strategies actively (Çıkrıkçı, 2020). The social life integration skill allows individuals to participate in life more effectively and undertake their developmental tasks and responsibilities more consciously. Çıkrıkçı and Çıkrıkçı (2022), in their study conducted on physically disabled individuals consisting of children and adolescents, determined that social life integration skills were a significant achievement for disadvantaged individuals. It was considered that this skill, which has the potential to contribute positively to life, may be related to other variables that directly or indirectly affect adjustment, communication, and coping. These related variables, implicit indicators of social life integration skills, involve intensive cognitive evaluations (Çıkrıkçı, 2020). Therefore, it is necessary to emphasize the cognitive evaluation process to discover the determinants of this skill among children and adolescents.

It has been known that the behaviors of adolescents in the process of individuation are affected by their cognitive evaluations (Coleman, 2023). Beck's cognitive model proposes that cognitive evaluation consists of different levels, with automatic thoughts being the most superficial level. Automatic thoughts are spontaneous, incoming thoughts associated with problematic behavior and disturbing emotions (Beck, 2020). They are particularly active when the individual experiences emotional distress and the individual begins to cope with this dysfunctional thinking. In childhood, specific mental schemas and automatic thoughts begin to emerge. These cognitions may need to be more realistic, which can hinder individuals' ability to effectively cope with problems and adapt to new situations (Clarke & Nicholls, 2018).

A recent experimental study based on Cognitive Behaviour Therapy (CBT) has empirically confirmed that decreasing automatic thoughts enhances effective coping skills (Demir & Ercan, 2022). Individuals who cannot cope effectively with problems may also need help adapting. A study on gifted children has reported that coping strategies were associated with adaptation (Değer, 2019). Social life integration skills become more evident in changing life events. In these new situations, it has

been believed that the automatic thoughts that children and adolescents possess play an essential role in converting their social life integration skills into performance. In the psychology literature, adapting to changing life events or challenging situations is associated with psychological resilience, and in the present study, social life integration skills have been considered as another structure that can contribute to the development of psychological resilience.

Coping styles with problems are closely related to their level of psychological resilience. Individuals can face various difficulties in any area of their lives. The psychological damage caused by these difficulties has often been the subject of scientific research. For researchers in the field on the journey from psychopathology to positive psychology, therapeutic approaches leave their place for preventive approaches. Observing that similar negative experiences do not have the same impact and destructiveness on every individual has contributed to developing a different perspective for researchers interested in preventive interventions. Psychological resilience depends on this perspective, including the individual's encounter with challenging life events and the preservation of psychological health resulting from this encounter (Çıkrıkçı, 2020). In this way, individuals can cope with the life events that challenge them. Studies on psychological resilience showed that the importance given to identifying processes that will contribute to the development of psychological resilience under negative conditions has increased (Gizir, 2007). With the effect of psychological resilience, individuals can have more positive interactions. Thus, individuals can make realistic evaluations of themselves and their environment (Brown et al., 2021). It may be determined that these evaluations can include cognitive and behavioral elements that contribute to the performance of the social life integration skill.

Drawing on empirical and theoretical assessments, it is deemed crucial to examine the factors that determine social life integration skills. In addition to the lack of studies on social life integration skills, there is a need for studies that specifically focus on identifying structures that contribute to the development of this skill in children and adolescents. The present study investigated predictors of social life integration skills in children and adolescents, with automatic thoughts and psychological resilience as predictor variables. At this stage, we would like to add additional information about why the scale used to assess automatic thoughts in the current research was preferred. This will both enable us to explain why the scale was preferred and facilitate the evaluation of the research according to the cognitive model.

According to Beck's cognitive theory, the content of distressed individuals' maladaptive schemas reflects their self-statements (Beck, 1996). Automatic thoughts affected by those maladaptive schemas are associated with anxiety, depression, and anger. Cognitive theorists assumed that beliefs about threat, personal failure, and hostility might also be associated with anxiety, depression, and anger (Schniering & Rapee, 2004). Cognitions and images of perceived physical or social threat are associated with anxiety. When focusing on the determinants of depression, negative beliefs dominated by personal failure, loss, and negativity can be seen. Anger, another important structure in the cognitive model, is associated with being wronged or transgressed. In line with Beck's arguments, beliefs and images affected by maladaptive schemas cluster together following the ideational content, and these clusters are associated with the etiology and progress of psychopathology (Beck, 1976;

Schniering & Rapee, 2002). In the current paper, we examined automatic thoughts among children and adolescents. Because Children's Automatic Thoughts Scale (CATS) supplied satisfactory measurements of automatic thoughts according to the issues mentioned earlier above, we preferred CATS. CATS consisted of four dimensions, including social threat, physical threat, personal failure, and hostility. Social threat refers to beliefs about threats from the social environment. Additionally, the physical threat is associated with cognition about the physical harmful events from other children and adolescents. As mentioned, beliefs on personal failure associated with depression represent a cognitive factor of loss and negativity. Lastly, hostility is related to hostile intent and the right for revenge emerged as a retaliation for the beliefs on being wronged or transgressed (Schniering & Rapee, 2004). As a consequence, we considered that the structure of the CATS reflected the cognitive model at a satisfactory level, and that CATS was used as a measure.

Although there were studies in the literature on automatic thoughts and psychological resilience (Sabanci & Çekiç, 2019; Yu et al., 2022), no research examined the relationship between these variables and social life integration skills. Identifying the predictors of social life integration in children and adolescents through automatic thoughts and psychological resilience reflects the originality and novelty of this study. Automatic thoughts and psychological resilience can impact children and adolescents' reactions to life events, which can have positive or negative implications for the social life integration process. The primary purpose of the present study has been to explore the associations among social life integration automatic thoughts and psychological resilience in children.

## Method

### Research Group

The convenience sampling method was used in the present study to determine the research group. The research group comprised 450 students (234 female, 216 male) aged between 11 and 15 ($M=12.65$; $SD=0.86$) studying at a public secondary school in Turkey. The research group consisted of 176 6th-grade (39.1%), 168 7th-grade (37.3%), and 106 8th-grade (23.6%) students (Table 1).

### Measures

**Social Life Integration Scale (SLIS)** The SLIS was developed by Çıkrıkçı (2020). The scale consisted of three sub-dimensions (adjustment, coping, and communication) and 15 items (Example item: "I can ask my teachers for help when I encounter a problem"). According to the exploratory factor analysis, three factor structure of SLIS accounted for 47.04% of the total variance. The factor loadings varied between 0.52 and 0.74. The confirmatory factor analysis revealed that the three factor model showed acceptable fit to the data ($RMSEA=0.04$, $CFI=0.95$, $SRMR=0.04$). The internal consistency coefficient was reported as 0.81. In the current study, the internal consistency coefficient of the measure was found as 0.81.

**Table 1** Characteristics of research group

| Variable | Frequency | % |
|---|---|---|
| Gender | | |
| Female | 234 | 52 |
| Male | 216 | 48 |
| Grade | | |
| 6th-grade | 176 | 39.1 |
| 7th-grade | 168 | 37.3 |
| 8th-grade | 106 | 23.6 |
| Mothers' educational status | | |
| Elementary School | 120 | 26.7 |
| Secondary School | 87 | 19.3 |
| High School | 121 | 26.9 |
| University | 97 | 21.6 |
| Other | 17 | 3.8 |
| Missing | 8 | 1.8 |
| Fathers' educational status | | |
| Elementary School | 70 | 15.6 |
| Secondary School | 84 | 18.7 |
| High School | 139 | 30.9 |
| University | 131 | 29.1 |
| Other | 14 | 3.1 |
| Missing | 12 | 2.7 |
| Sibling count | | |
| No sibling | 3 | 0.7 |
| One | 47 | 10.4 |
| Two | 187 | 41.6 |
| Three | 171 | 38 |
| More than three | 42 | 9.3 |
| Marital status of parents | | |
| Married | 419 | 93.1 |
| Divorced | 26 | 5.8 |
| Missing | 5 | 1.1 |

**Children's Automatic Thoughts Scale (CATS)** The CATS was used to reveal the negative cognitions among children. The CATS was developed by Schniering and Rapee (2002). The scale consisted of four sub-dimensions and 40 items. These factors entitled physical threat (CATS–PT; e.g., I'm going to have an accident), social threat (CATS–ST; e.g., I'm afraid of what other kids will think of me), personal failure (CATS–PF; e.g., I will never over come my problems), and hostility (CATS–HO; e.g., People always try to get me into trouble). Children are expected to mark by considering how often the thought in each item came to their mind in the last week. The lowest score from the scale is 0, and the highest score is 160. The high total score from the scale and each subscale indicates an increase in negative thoughts. The adaptation study into Turkish was performed by Atalan-Ergin and Kapçı (2013). The internal consistency coefficient of the CATS was reported as 0.94. In the current study, the internal consistency coefficients of the CATS, CATS–PT, CATS–ST, CATS–PF, CATS–HO were determined as 0.95, 0.88, 0.89, 0.89, 0.83, respectively.

**Brief Resilience Scale (BRS)** The BRS was developed by Smith et al. (2008). The BRS was a single-factor structure including 6 items (Example item: It is hard for me to snap back when something bad happens). The adaptation study into Turkish was conducted by Doğan (2015). The single factor structure of BRS was tested by means of confirmatory factor analysis. The results showed that the model had excellent fit to the data ($RMSEA = 0.05$, $CFI = 0.99$, $SRMR = 0.03$). The factor loadings of items differed from 0.52 to 0.76. The internal consistency coefficient of the BRS was reported as 0.83. In the current study, the internal consistency coefficient of the BRS was found as 0.73.

### Ethical Approval and Procedure

This study was approved by the Social and Human Sciences Ethics Committee of the state university where the first author studied (Decision No: 07.34, Date: 27.04.2022). Participation in the study was completely voluntary. Data were collected by the first author. The first author had set a time frame for each class and introduced the research to the students in the classroom. It took about 15 min for a student to fill out the paper and pencil questionnaires. The whole data collection process was completed in 10 days.

### Data Analysis

We used SPSS 24.0 software for data analysis. Before analyses, data were screened in terms of missing values. In initial screening, four data were excluded from the analysis because of the missing values. Then, assumptions of parametric analyses including outliers and normality of distribution were checked. To achieve these assumptions, z scores were obtained and nine data were eliminated because they did not have a value between −3 and +3. Kurtosis (SLIS = 0.42, CATS–PT = 0.15, CATS–ST = 1.26, CATS–PF = 0.69, CATS–HO = −0.74, BRS = −0.51) and skewness (SLIS = 0.83, CATS–PT = 0.91, CATS–ST = 1.36, CATS–PF = 1.14, CATS–HO = 0.14, BRS = 0.04) values provided evidence for normality of distribution. Pearson product-moment correlation coefficient was used to investigate the associations among variables. By means of multiple linear regression analysis, the predictors of social life integration were explored. This analysis based on 5.000 bootstrap samples.

## Results

### Results from Correlation Analysis

The results of the correlation analysis have been presented in Table 2. The results revealed that social life integration was significantly associated with automatic thoughts ($r = -.50$, $p < .001$; %95 CI [-0.406, −0.581]) and psychological resilience ($r = .28$, $p < .001$; %95 CI [0.373, 0.185]). Additionally, social life integration was significantly correlated with the social threat ($r = -.44$, $p < .001$; %95 CI [-0.341,

**Table 2** Associations among automatic thoughts, psychological resilience, and social life integration

| Variable | M | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|
| SLI (1) | 28.58 | 8.66 | 1 | | | | | | |
| AT (2) | 85.96 | 31.70 | −0.50** | 1 | | | | | |
| PR (3) | 18.86 | 5.29 | 0.28** | −0.49** | 1 | | | | |
| ST (4) | 18.45 | 8.93 | −0.44** | 0.85** | −0.43** | 1 | | | |
| PF (5) | 20.15 | 9.41 | −0.49** | 0.91** | −0.51** | 0.77** | 1 | | |
| HO (6) | 26.44 | 9.16 | −0.37** | 0.74** | −0.30** | 0.43** | 0.52** | 1 | |
| PT (7) | 20.90 | 9.59 | −0.40** | 0.92** | −0.45** | 0.72** | 0.81** | 0.59** | 1 |

Note. ** p < .001; SLI = Social Life Integration, AT = Automatic Thoughts, PR = Psychological Resilience, ST = Social Threat, PF = Personal Failure, HO = Hostility, PT = Physical Threat. CI was generated by means of 5.000 bootstrap samples

**Table 3** The predictive roles of psychological resilience and automatic thoughts on social life integration

| Model | B | SE | ß | t | p | Zero-order | Partial | Part |
|---|---|---|---|---|---|---|---|---|
| Constant | 71.97 | 2.25 | | 32.01 | 0.001 | | | |
| PR | 0.06 | 0.08 | 0.03 | 0.73 | > 0.05 | −0.28 | −0.03 | −0.02 |
| ST | −0.15 | 0.06 | −0.15 | 2.30 | < 0.05 | 0.43 | 0.10 | 0.09 |
| PF | −0.33 | 0.07 | −0.36 | 4.44 | < 0.001 | 0.49 | 0.20 | 0.18 |
| HO | −0.17 | 0.05 | −0.18 | 3.52 | < 0.001 | 0.37 | 0.16 | 0.14 |
| PT | 0.10 | 0.07 | 0.11 | 1.48 | > 0.05 | 0.40 | −0.07 | −0.06 |

Note. PR = Psychological Resilience, ST = Social Threat, PF = Personal Failure, HO = Hostility, PT = Physical Threat

−0.525]), personal failure ($r$ = −.49, $p$ < .001; %95 CI [-0.401, −0.572]), hostility ($r$ = −.37, $p$ < .001; %95 CI [-0.279, −0.456]), and physical threat ($r$ = −.40, $p$ < .001; %95 CI [-0.308, −0.496]). Moreover, there was a significant correlation between automatic thoughts and psychological resilience ($r$ = −.49, $p$ < .001; %95 CI [-0.563, −0.415]). Additionally, the results showed that psychological resilience was significantly associated with social threat ($r$ = −.43, $p$ < .001; %95 CI [-0.508, −0.338]), personal failure ($r$ = −.51, $p$ < .001; %95 CI [-0.575, −0.434]), hostility ($r$ = −.30, $p$ < .001; %95 CI [-0.381, −0.208]), and physical threat ($r$ = −.45, $p$ < .001; %95 CI [-0.526, −0.369]).

## Results from Regression Analysis

Results from multiple linear regression analysis showed that the regression model was significant ($F_{(5, 444)}$ = 32.96, $p$ < .001). Social threat ($\beta$ = −0.15, $p$ < .05), personal failure ($\beta$ = −0.36, $p$ < .001), and hostility ($\beta$ = −0.18, $p$ < .001) significantly predicted social life integration. On the other hand, physical threat ($\beta$ = 0.11, $p$ > .05) and psychological resilience ($\beta$ = 0.03, $p$ > .05) were not significant predictors of social life integration (Table 3). The social threat, personal failure, and hostility accounted for 26%of the total variance in social life integration.

## Discussion

This research sought to answer what can be done to help children and adolescents transform their lives into effective and productive forms while achieving their developmental tasks. In this study, the predictive roles of automatic thoughts and psychological resilience on the skill of social life integration were examined. The results indicated that the social life integration skill was associated with resilience and automatic thoughts. The regression analysis included the sub-dimensions of the CATS and psychological resilience. The results demonstrated that the social threat, personal failure, and hostility sub-dimensions of the CATS negatively predicted social life integration. However, the predictive strength of resilience on social life integration was not significant.

The present study's empirical findings indicated that the dominance of automatic thoughts could have a negative impact on social life integration. This finding suggested that children and adolescents' emotional and behavioral responses to life events can be influenced by their thoughts. In simpler terms, an increase in automatic thoughts may lead to decreased social life integration. From this perspective, the study results are consistent with the cognitive therapy model. According to the CBT model, individuals' behaviors and emotional responses are influenced not by the events themselves but by the thoughts attributed to those events. These thoughts often emerge spontaneously and are conceptualized as automatic thoughts. It has been known that experiences are essential in the development of these beliefs (Beck, 2020). In discussing the first finding, it is crucial to consider the impact of past experiences on automatic thoughts. In this regard, it can be stated that the development of automatic thoughts is associated with attachment processes. A study conducted with adolescents found a significant relationship between negative automatic thoughts and attachment to the mother. Adolescents who perceive their mothers as warm and accessible when they need them may tend to think positively. Not surprisingly, a weak attachment to the mother can trigger the development of automatic thoughts and lead children and adolescents to emotional and behavioral difficulties (Irfan et al., 2019). Therefore, experiences in attachment processes can affect children's cognitive evaluation systems. A cross-sectional study showed that a secure attachment to the mother could protect adolescents from depression (Kerstis et al., 2018).

In conclusion, there was evidence that parents' reactions directly or indirectly affect children's mental health. Indeed, adolescents who have a quality attachment with their parents have low levels of automatic thoughts (Irfan & Zulkefly, 2023). Although no study examined the relationship between automatic thoughts and social life integration, it has been known that attachment processes, which are related to automatic thoughts, are associated with social life integration. According to a study that reports social life integration to be positively associated with a secure attachment style and negatively associated with an anxious-ambivalent and avoidant attachment style, an individual with a secure attachment to the person providing care can direct this tendency towards other people over time. Secure attachment can allow the belief that one can turn to others for help when needed. From this perspective, it is thought that a person who encounters negative experiences can solve their problems by seeking help from others around them (Çıkrıkçı, 2020). In other words, automatic

thoughts shaped by attachment can affect the components of social life integration, such as adaptation, coping, and communication.

In this study, social threat, personal failure, and hostility are significant explanatory sub-dimensions for social life integration. Additionally, as seen in Table 2, social threat, personal failure, and hostility had significant unique variance in predicting social life integration. Social life integration inherently involves disrupting the individual's state of balance. It is believed that an event that causes the development of automatic thoughts related to social threat, personal failure, and hostility can be a compelling factor that disrupts the individual's state of balance. However, the intensity of automatic thoughts is associated with the individual's healthy responses in achieving social life integration. According to this research, increasing the intensity of automatic thoughts in these three areas can weaken social life integration. These automatic thoughts can prevent the individual from actively participating in social life. Instead of adapting to compelling experiences that cause the development of these automatic thoughts, the individual may restrict their social life. The quality of communication of an individual who restricts their social life may also be affected. They may not benefit from the social support mechanism, which plays a significant role in coping. As seen, an increase in automatic thoughts related to social threats, personal failure, and hostility can involve an individual in a vicious cycle.

Another finding from the research relates to psychological resilience's predictive status for social life integration. According to the correlation analysis findings, psychological resilience is related to social life integration. However, according to multiple linear regression analysis results, psychological resilience is not a significant predictor of social life integration. Studies consistent with the correlation analysis findings have been found (Caqueo-Urízar et al., 2021; Eshel et al., 2022; Huang et al., 2022; Maktoof, 2021). The common finding of these studies is that psychological resilience can potentially strengthen social life integration. In a study conducted by Versteeg et al. (2022) during the COVID-19 emergency remote teaching period, it was reported that students with low levels of psychological resilience had lower social life integration. According to a study conducted on immigrant children, a high level of family, school, and community social capital can affect the psychological resilience of immigrant children and indirectly improve their social life integration (Huang et al., 2022). One common feature of these studies is that they were conducted on groups that have experienced compelling life events (migration, war, pandemic, etc.). Our study was conducted with children and adolescents who have not experienced any compelling life events. This situation may be the reason why psychological resilience did not emerge as related to social life integration in the regression analysis. Psychological resilience is inherently demonstrated after compelling life events. Individuals in the research group of this study may not have experienced such a life event. However, it can be thought that children and adolescents need more experience for psychological resilience to develop as a competency belief, even if they show psychological resilience.

## Limitations and Recommendations

This study was not deprived of limitations. The most important limitation of the study was the generalizability of the results. Due to the nature of cross-sectional studies, cause-effect evaluation could not be made between variables. Therefore, it is recommended to carry out experimental studies that allow cause-effect explanations between the variables. In the present study, integration into social life was assessed as a latent indicator of adaptation, coping, and communication. In future studies, exploring different components of integration into social life may be suggested. Besides the limitations, the most substantial aspect of the present study was its evaluation of social life integration in children in the context of automatic thoughts and psychological resilience. To our knowledge, this was the first study in which the associations among variables were discussed. This study has presented empirical findings that automatic thoughts predict social life integration.

## Implications

This study can provide implications for policymakers, clinicians, school counselors, and researchers. Being aware of the determinants of social life integration can offer essential benefits on how to improve social life integration, which is characterized as a skill (Çıkrıkçı, 2020). Policymakers (in Türkiye) plan educational, vocational, and personal/social guidance activities offered to school students. In addition, efforts to develop students cognitively, affective, socially, and psychologically through school counselors are carried out in line with national policies. The present study's findings may outline how to improve social integration skills, especially in students exposed to difficult experiences (migration, earthquake, loss of parents, etc.). Due to the nature of the present cross-sectional study, no cause-and-effect inferences can be made. It is suggested that researchers should focus on experimental studies in the future where a hypothesis can be tested that social integration can be strengthened by reducing automatic thoughts.

Furthermore, it would be necessary for researchers to explore the effects of social life integration on psychological, social, and cognitive processes. In this way, clinicians can more effectively intervene in other possible psychological processes that develop due to low social integration skills while strengthening this skill in line with the determinants of social integration skills. In the present study, psychological resilience did not significantly predict social life integration. Although this finding is not surprising, testing this finding in different studies will increase the consistency of the research. Finally, considering that situations such as migration, war, and loss are common worldwide, examining the ability to integrate into social life in the context of psychological resilience in different developmental periods (youths, adults, and olds) may contribute to strengthening universal harmony.

## Conclusion

The results of present cross-sectional study showed social life integration was associated with automatic thoughts and psychological resilience among children and adolescents. The social threat, personal failure, and hostility, sub-dimensions of automatic thoughts scale, were significant predictors of social life integration, whereas psychological resilience was not. Overall, the results may contribute to comprehension of social life integration among children and adolescent.

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**Data Availability** The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

### Declarations

**Ethics approval and consent to participate** The ethical suitability of the study was approved by the Social and Human Sciences Research Ethics Committee of the university where the first researcher works. Additionally, all procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Competing interests** The author(s) declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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