



How do I feel right now? Emotional awareness, emotion regulation, and depressive symptoms in youth

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Received: 11 January 2018 / Accepted: 19 July 2018 / Published online: 1 August 2018
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Abstract

Decreased emotional awareness contributes to the risk of internalizing disorders, such as depression. Although emotional awareness may be especially important during adolescence, a developmental period in which emotional arousal is high and the risk of depression rises dramatically, little research has examined the mechanisms linking emotional awareness to depression. Starting from affect regulation models, the current study proposes emotion regulation (ER) as a key underlying mechanism in the emotional awareness—depression relationship. The current study investigated whether maladaptive and adaptive ER strategies mediate the relationship between emotional awareness and depressive symptoms among youth using a cross-sectional design. Participants were 220 youth (65% girls; $M_{\text{age}} = 11.87$, $SD = 1.94$) who filled out a set of questionnaires assessing emotional awareness, ER strategies, and depressive symptoms. Results revealed no direct relationship between emotional awareness and depressive symptoms. However, emotional awareness yielded a significant mediation effect through total adaptive ER strategies on higher depressive symptoms. No evidence was found for the mediating role of maladaptive ER strategies in this relationship. The current study provides further support for affect regulation models positing that emotional awareness may be a basic skill that is required for learning adaptive ER skills, and thus call for greater attention to adaptive ER strategies.

Keywords Emotional awareness · Emotion regulation · Depression · Youth

Introduction

Major depressive disorder (MDD) is a highly impedimentary mental disorder, classified by the World Health Organization [1] as the world's third most disabling health problem and the most debilitating psychological illness. MDD is characterized by the DSM-5 as an affective disorder of chronic nature marked by extreme sadness and the inability to experience pleasure or anhedonia [2]. With a prevalence of about 1%, MDD is relatively rare among children [3], but its incidence increases considerably to 10.5% during adolescence [4] with a lifetime prevalence of up to 25% at the end of this

developmental period [5]. Early onset depression can cause a plethora of other problems, including social and academic difficulties [6, 7], as well as increased self-harm and heightened risk of attempting suicide [8]. Furthermore, even more adolescents experience subclinical depressive symptoms with 29% of European youth being at risk for developing MDD [9]. Given the detrimental outcomes associated with such symptoms [10], it is crucial to prioritize research into the factors influencing the development of depressive symptoms during this critical developmental period.

Affect regulation theories [11–14] suggest that emotional awareness and emotional regulation may be important factors for understanding the risk of youth psychopathology including depression. Unfortunately, to date both factors have largely been studied in isolation. Yet, emotional awareness and emotion regulation are likely to be closely intertwined since they each constitute distinct components of the same emotional response [13, 15]. Therefore, one promising line of research considers emotional awareness and emotion regulation simultaneously to shed more light on the unique

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contributions of both mechanisms for understanding youth depression.

Emotional awareness and depressive symptoms

Emotional awareness refers to the skills of an individual to identify, explain, and discern his or her own as well as others' emotional experiences [16], which are needed for the active and goal-oriented modification of emotional experiences [17]. Investigating individual differences in emotional awareness may be imperative in adolescence as it is considered to be a period of affective turbulence [18]. In comparison to children and adults, youth generally experience increased levels of negative affect and greater emotional reactivity [18] as a result of the rapid changes in affective brain systems [19, 20]. Concomitant with other aspects of development such as new and challenging life tasks [21], the experience of emotions becomes more sophisticated and differentiated [16]. In the meantime, emotional awareness increases gradually throughout the adolescent period [22–24]. However, it should be noted that the typical increase in emotional arousal and reactivity is not automatically accompanied with increases in emotional awareness. First, the rapidly changing affective brain systems [19, 20] need to engage in reciprocal interactions with more gradually developing cognitive systems. More specific, there is a lag in the maturation of the prefrontal cortical regions associated with emotional awareness continuing through adolescence [25] such as the anterior cingulate cortex [ACC; 26] which plays a crucial role in processing and representing the internal or bodily arousal underlying conscious core feeling states [27–29]. Second, theory suggests that one's conscious awareness or experience of emotions is in part a result of one's past experience with emotional language [16]. Emotional awareness thus requires the individual to develop emotion vocabulary. Using modelling and role play, significant others can learn youth how to identify, label, and appropriately communicate emotions [30, 31]. If such experiences fall short, the emotional vocabulary of the youngster may be restricted.

In short, emotional awareness may still be limited during the adolescent developmental phase due to various biopsychosocial factors. As a consequence, youth may experience difficulties with identifying, understanding, and communicating (the often intense) emotions, putting them at risk of developing internalizing problems [32, 33]. Until now, a plethora of research has already focused on the relationship between emotional awareness and anxiety disorders, revealing that higher levels of emotional awareness are associated with less anxiety symptoms in adolescents [e.g. 33, 34]. A similar but less developed line of research has investigated

the relationship between emotional awareness and depression. In line with general findings of studies conducted on adult samples [35–37], there seems to be a negative relationship between emotional awareness and depressive symptoms in youth [33, 34, 38–40]. Despite the emerging evidence, suggesting that emotional awareness may play a key role in understanding depressive symptoms in youth, the literature on this topic is still considerably scant and several questions remain to be explored.

Emotional awareness, emotion regulation, and depressive symptoms

Emotional awareness is one skill that influences the emotional experience and response and is needed for the successful use of emotion regulation strategies [15, 17, 41]. Emotion regulation strategies refer to the ways in which individuals actively and goal-oriented regulate their emotions [42]. The overall set of skills and processes, used to change the emotional experience and response, can be defined as emotion regulation (ER) [43]. ER strategies can be broadly divided into two categories. A great number of past studies has focused on the role of maladaptive ER strategies in psychopathology, dependent on their long-term effects on affect, behaviour, and cognition, and their overall association with psychopathology [44–46]. A great number of past studies have focused on the role of maladaptive ER strategies in psychopathology, examples of which are rumination and suppression. Their prevailing use has been shown to lead to more overall maladjustment in the long-term and is associated with the higher prevalence of psychological symptoms [46, 47]. On the other hand, adaptive ER strategies such as reappraisal and positive refocusing have received less attention, but are generally viewed positively and counted as examples of successful and effective ER, as they have been linked to increased overall emotional wellbeing and decreased psychopathology [45, 46].

During adolescence, the effective use of adaptive ER strategies to adequately manage the intense negative emotions accompanying this developmental period is not always possible, seeing as the cognitive systems underlying adaptive ER are still maturing [18, 25, 32]. As a result, youth in the early adolescent phase may not yet be fully equipped to regulate negative emotions properly. This in turn can potentially result in the prolonged use of more automatic maladaptive ER strategies such as rumination and aggression, which puts youth at increased risk of depression [48]. This is further evidenced by studies on the maladaptive shift model, revealing that the use of ER strategies (i.e. a decrease of adaptive ER strategy use and an increase of maladaptive ER strategy use) in adolescence due to the heightened emotional reactivity accompanying the adolescent period [48, 49].

Interestingly, affect regulation models state that emotional awareness is one of the most important rudimentary skills required for effective ER [11, 13]. If negative emotions predominate in a certain situation, being aware of one's own emotional experiences may facilitate the conscious deployment of adaptive ER strategies to quickly and effectively downregulate these emotions [41, 50, 51]. Conversely, the inability to become aware of one's emotions may impede the utilization of adaptive ER strategies and result in a maladaptive shift in ER causing prolonged negative emotions [50, 51]. For example, when an individual is unaware of the fact that he or she is feeling sad and worthless at the same time, it might be difficult to diminish the feelings of worthlessness. In fact, the two feelings may be merged into an overall feeling of 'dejectedness'. Without the ability to differentiate between these emotions and identify them, as well as understanding the cause underlying these emotions, youth may have difficulties using an adaptive ER strategy such as cognitive reappraisal to target the thoughts that are causing the feeling of worthlessness. Instead, youth may automatically shift to rumination and repeatedly and passively think about one's negative emotions while the underlying cause remains unresolved. While the link between emotional awareness and ER strategies has been theoretically established [11–14], past research has paid less attention to the association between emotional awareness and ER strategies in youth.

Considering this link between emotional awareness and ER strategies as well as the association of both of these concepts with psychopathology and depression specifically, it is possible that emotional awareness and ER strategies are not isolated components but are rather closely intertwined. For example, it is plausible that emotional awareness exerts an indirect effect on depressive symptoms via ER strategies. Specifically, decreased emotional awareness may facilitate the use of maladaptive ER strategies and limit the use of adaptive ER strategies, possibly contributing to higher levels of depressive symptoms. Unfortunately, to date most of the confirmatory evidence for such a mediation model comes from research on (young) adults. In their study, Vine and Aldao [52] tested different mechanisms underlying the relationship between emotional awareness and psychopathology in healthy undergraduate students and discovered disorder-specific patterns of ER deficits to be the best mediator between emotional awareness and symptoms of anhedonic depression and social anxiety. Similarly, Boden and Thompson [53] assessed both potential direct and indirect associations between different facets of emotional awareness and depression cross-sectionally in adults. Results suggested a partial mediation via the ER strategies suppression and acceptance with the facets of emotional awareness being negatively related to suppression and positively to acceptance. Moreover, Eastabrook et al. [32] investigated the mediating role of certain ER strategies in the relationship between

emotional awareness and internalizing symptoms in youth and found suppression, but not reappraisal, to be a full mediator in the relationship between emotional awareness and social anxiety symptoms, and reappraisal, but not suppression, to be a full mediator in the relationship between emotional awareness and depressive symptoms. These results suggest that ER strategies may indeed mediate the link between emotional awareness and depressive symptoms, and reveals how ER strategies may act as a crucial mechanism through which emotional awareness contributes to psychopathology in adults. Nevertheless, it has to be noted that evidence in youth is considerably scarce, the research conducted by Eastabrook et al. [32] being the only study to date examining ER strategies as a mechanism underlying the emotional awareness—depressive symptoms relationship using an adolescent sample (13–16 years) to our knowledge. Moreover, this study used a sample exclusively consisting of females and only assessed two ER strategies. Yet, more ER strategies exist and multiple ER strategies are often employed in different contexts and to different degrees within one individual [54, 55]. More specifically, a wider range of adaptive ER strategies may offer youth greater flexibility to shift between different ER strategies, whereas a wide range of maladaptive ER strategies may reflect one's general dysregulation. Therefore, it is important to consider a broader range of ER strategies when examining the role of ER on psychological functioning [55, 56].

The current study

Given the preliminary evidence, the present research aimed at expanding on past findings, by directly investigating the specific mediating role of a broad range of maladaptive ER strategies and adaptive ER strategies in the relationship between emotional awareness and depressive symptoms in a non-clinical sample of youth, using a cross-sectional design. Although cross-sectional studies lack the methodological strength to make causal inferences and limit understanding of the dynamics within the processes linking emotional awareness to depressive symptoms over time, such preliminary studies can serve as a basis from which more complex, longitudinal designs can be constructed. Based on past evidence, we hypothesized that emotional awareness would be negatively associated to depressive symptoms through the use of maladaptive ER strategies and a lack of adaptive ER strategies.

Methods

Participants

Participants were 220 Dutch speaking youth (65% girls) within an age range from 8 to 15 years ($M_{\text{age}} = 11.87$,

SD = 1.94). All participants lived in Belgium. The majority of the families in the current sample were of upper–middle (37.3%) or middle class (52.7%) socioeconomic status (SES) based on the parents' educational level and current occupation [57], whereas 5.5% were from a lower–middle, and 0.5% from a lower class background. Furthermore, 78.6% lived together with both of their parents, 9.1% with one of their parents and this parent's new partner, 5.5% with their mother alone, 0.9% with their father alone, and 5.5% reported to be subject to co-parenting from both parents not living together at the time of testing.

Procedure

The current study is part of a larger research project on depression, including all children from fourth to eighth grade from all public schools of an urban city (Deinze, Belgium). The protocol of the study was approved by the ethical committee of the author's institution. Further details can be found in Van Beveren et al. [58]. Briefly, third-year psychology students were trained and instructed to each visit in dyads two of the families who assented on taking part in the current study. After providing written consent, parent and child were separately asked to fill out the paper–pencil questionnaires in a fixed order. The assessment was continued during a second home visit, 1 week after the first home visit. Participation was not remunerated.

Measures

Emotional awareness

The 'Awareness' subscale of the Difficulties in Emotion Regulation Scale (DERS) [59, 60] was utilised to quantify emotional awareness. This six-item self-report measure assesses individuals' attention to as well as their awareness of their emotional responses and requires participants to declare how often a specific item applies to their present situation with the help of a five-point Likert scale ranging from (1) 'almost never' to (5) 'almost always'. In the current study, a higher score indicated a higher degree of emotional awareness. The DERS has shown to be a reliable and valid measure in assessing adolescents' emotion regulation and related processes [60]. Cronbach's alpha in the current sample was 0.71.

Emotion regulation strategies

ER strategies were measured using the FEEL-KJ [61, 62]. The FEEL-KJ is a 90-item self-report measure assessing various adaptive, maladaptive, and external ER strategies in response to anger, fear, and sadness in youth aged 8–18 years. Participants rated each item on a 5-point Likert

scale from (1) 'almost never' to (5) 'almost always'. In the present study, only the total adaptive (FEEL-KJ-AS) and total maladaptive (FEEL-KJ-MS) ER strategies subscales were considered. Total scores on these scales comprise the separate scores on all three emotions and reflect general dispositions to adaptively or maladaptively cope with negative emotions. Based on evidence in children and adolescents [63], the FEEL-KJ-AS comprises the ER strategies behavioural problem solving, cognitive problem solving, forgetting, acceptance, distraction, positive refocusing, and reappraisal. The FEEL-KJ-MS subscale includes the ER strategies giving up, aggression, rumination, self-devaluation, and withdrawal. The FEEL-KJ has proven to be a valid and reliable questionnaire [62, 64]. Internal consistency for the FEEL-KJ-AS and FEEL-KJ-MS subscale in current study was 0.95 and 0.86, respectively.

Depressive symptoms

The Child Depression Inventory (CDI) [65, 66] was used to measure depressive symptoms. The CDI is a 27-item self-report measure for youth aged 7–17 years to assess cognitive, affective, and behavioural symptoms of depression. Each item comprises three response options, which vary in severity and are rated on a three-point scale. The CDI demonstrated good internal consistency and test–retest reliability in non-clinical youth [66, 67]. Cronbach's alpha in the current sample was 0.87.

Data analytic strategy

Missing values

Preliminary analyses of the data suggested that the percentage of missing data ranged between 0 and 1.4% per item. Comparison of means and covariances of all variables using Little's MCAR-test [68] produced a normed χ^2 (χ^2/df) of 0.53, $p > 0.30$, indicating that the data were likely missing completely at random [69]. Consequently, missing values were estimated following the expectation maximization (EM) algorithm available in SPSS 23 [70].

Analytic plan

To adjust for measurement error, structural equation modelling (SEM) with latent variables [69] was used to test the proposed relationships using robust maximum likelihood estimation in Mplus 7.6 [71]. SEM with latent variables requires multiple indicators for all study variables. Variables were modelled as latent variables, each represented by three parcels and created through the random selection of items. Total maladaptive and adaptive ER strategies were modelled as higher order factors indicated by the specific ER

strategies which are part of the FEEL-KJ-MS and FEEL-KJ-AS subscale, respectively. Given the gender and age differences in emotional awareness, ER strategies, and depressive symptomatology [72–74], we included these variables as covariates throughout all analyses. Model fit was evaluated based on the combined cut-off of 0.06 for the root mean square error of approximation (RMSEA) and 0.08 for the standardized root mean square residual (SRMR). In addition, a comparative fit index (CFI) of 0.95 or higher indicates a good fit [75].

Results

Descriptives

Means, standard deviations, and correlations between all variables are shown in Table 1. Mean scores of all variables in the current sample are comparable to findings of previous studies in youth samples [60, 62, 65, 66]. Except for the non-significant correlation between emotional awareness and depressive symptoms, all variables were correlated in the hypothesized direction.

Preliminary analyses

Preliminary analyses using ANCOVA revealed that age ($\beta = 0.69$, $t(219) = 3.20$, $p < 0.05$) was significantly related to depressive symptoms, whereas gender ($\beta = 0.00$, $t(219) = -0.06$, $p = 0.954$) was not.

Measurement model

The estimated measurement model for emotional awareness, depressive symptoms, and ER yielded a good fit ($\chi^2(48) = 73.74$, $p < 0.01$, CFI = 0.98, RMSEA = 0.05, SRMR = 0.04).

Structural equation modelling

Emotional awareness and depressive symptoms

First, the SEM including the relationship between emotional awareness and depressive symptoms showed a good fit ($\chi^2(18) = 26.04$, $p < 0.09$, CFI = 0.98, RMSEA = 0.04, SRMR = 0.05). Contrary to our hypothesis, results revealed a non-significant effect for emotional awareness ($\beta = -0.12$, $p = 0.127$) on depressive symptoms. Nonetheless, given the consensus among statisticians that the total, direct effect is not a necessary condition for mediation to occur [76, 77], it is legitimate to further explore the proposed mediation model.

Emotional awareness, ER, and depressive symptoms

The structural model with total ER as a mediator revealed a good fit ($\chi^2(67) = 112.79$, $p < 0.001$, CFI = 0.96, RMSEA = 0.06, SRMR = 0.05). As can be seen in Fig. 1, the structural model proposes that emotional awareness directly associated with total adaptive ER strategies in the hypothesized direction and that total adaptive ER strategies is negatively associated with depressive symptoms. To determine whether total adaptive ER strategies significantly mediated the relationship between emotional awareness and depressive symptoms, we inspected the indirect effects using bootstrapped standard errors revealing that the indirect effect was significant ($\beta = -0.09$, $p < 0.01$). Results suggest that emotional awareness yields a significant effect through total adaptive ER strategies on depressive symptoms. More specifically, the direct path from emotional awareness to depressive symptoms was non-significant. Second, the structural model revealed that emotional awareness did not significantly associated with maladaptive ER. Contrary to our expectations, indirect effects revealed that maladaptive ER strategies did not significantly mediate the emotional awareness—depressive symptoms relationship ($\beta = 0.10$, $p = 0.09$).

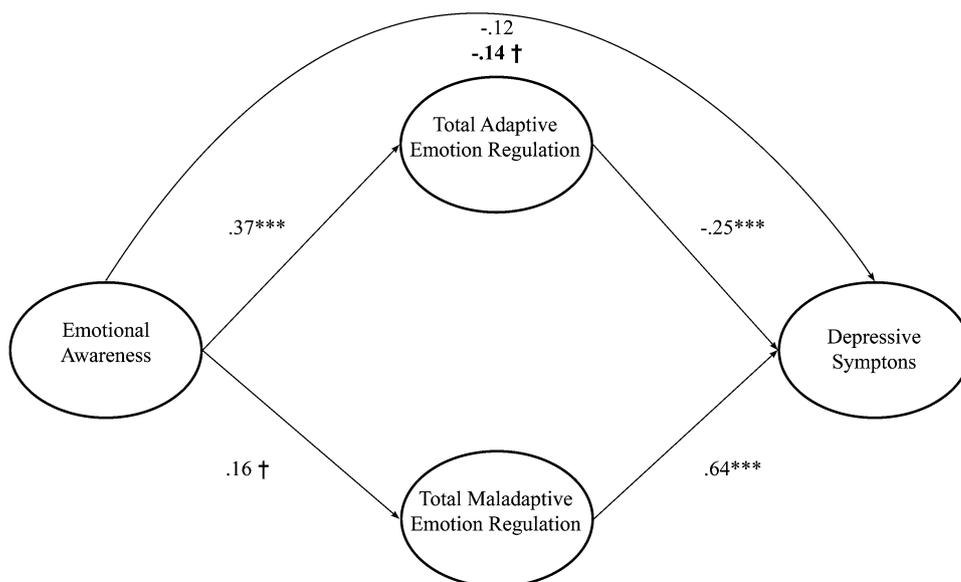
Table 1 Variable correlations and descriptives

Variables	1	2	3	<i>M</i> (SD)	Min	Max
1. EA				17.99 (4.89)	6.00	28.00
2. CDI	-0.07			8.02 (6.28)	0	34.00
3. Adaptive ER	0.30**	-0.27**		135.60 (25.83)	78.00	210.00
4. Maladaptive ER	0.16*	0.53**	-0.02	71.91 (14.58)	31.00	117.00

N = 220, EA emotional awareness, CDI depressive symptoms, Adaptive ER total adaptive ER strategies, Maladaptive ER total maladaptive ER strategies

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Fig. 1 Structural model for the mediation model



Discussion

The goal of the present research was to test the potential mediating effects of ER strategies in the relationship between emotional awareness and depressive symptoms in a sample of youth using a cross-sectional design. Based on past evidence [32, 52, 53], we hypothesized that both maladaptive and adaptive ER strategies would mediate the relationship between emotional awareness and youth depressive symptoms. Below, our findings and their contribution to the current state of research will be discussed.

First, results suggest that difficulties in emotional awareness may contribute to the development of depressive symptoms through their unfavourable effects on the use of adaptive ER strategies. Interestingly, no evidence was found for the hypothesis that low emotional awareness similarly predicts higher depressive symptoms through the use of maladaptive ER strategies to cope with negative emotions. Specifically, the current study underlines the critical mediating role of adaptive ER strategies in the relationship between emotional awareness and youth depression, as also highlighted by Eastabrook et al. [32]. Their findings demonstrated that not suppression, an example of maladaptive ER strategies, but rather reappraisal, an adaptive ER strategy, served as a mediator in the relationship between emotional awareness and depressive symptoms in a community-based sample of female adolescents. Current results further suggest that emotional awareness is a specific skill that is fundamental before learning adaptive ER skills [11]. This is in line with recent affect regulation models stating that emotional awareness is the basis of effective ER [11]. For example, cognitive reappraisal, which involves cognitive re-framing of an emotional situation, requires the understanding of

the specific emotional elicitors and resultant emotions [78, 79]. Therefore, youth high in emotional awareness may be more likely to learn and adopt such an adaptive ER strategy to cope with the intense negative emotions that typify the adolescent period. Moreover, it is plausible to assume that if negative emotions predominate, which is especially the case in adolescence, being aware of one's emotions may be a *sine qua non* for the use of adaptive ER strategies to quickly and effectively downregulate these emotions [41, 50, 51] which in turn may lower the risk of developing depressive symptoms.

Second, the lack of significant findings pertaining the mediation model including maladaptive ER strategies suggests that while adaptive ER strategies require an individual to be high in emotional awareness, maladaptive ER strategies may be activated without being aware of one's own emotions. On a related note, adaptive ER strategies (e.g. cognitive reappraisal, acceptance, positive refocusing) may need a more conscious activation of cognitive resources [11], whereas maladaptive ER strategies may be influenced more by biologically based factors such as one's temperamental constitution [72] and as a result are activated more automatically in response to negative affect. For example, rumination has shown to be a less effortful strategy [80] that is usually triggered in response to stress in individuals showing temperamental vulnerability [72]. This is consistent with cognitive affective models on depression stating that temperament contributes developmentally to greater vulnerability such as rumination, which is considered to be a pre-existing tendency to cope with negative emotions [72, 81].

Furthermore, while automatic activation and regulation of emotions may have functional significance and may be helpful in the short-term, some negative emotions may require a

much more sophisticated level of emotional awareness and regulation and thus the conscious deployment of adaptive ER strategies. For example, while avoidance and suppression may be relatively benign short-term strategies to manage negative emotions [82], these strategies may not assist youth in regulating negative effect in the long term because the stressors remain unresolved. Similarly, rumination does not lead to active problem solving to change stressors eliciting negative emotions. Instead, individuals who are ruminating remain fixated on the stressor and consequent emotions without taking action [83]. As a result, youth may need to shift to other, more adaptive ER strategies. However, consistent with the maladaptive shift model, the tendency to use maladaptive ER strategies may result in prolonged negative emotions and a less frequent use of adaptive ER strategies in highly reactive youth [84] placing them at risk for developing depressive symptoms.

Limitations and future research

Despite some notable strengths, several limitations of the current study warrant discussion. First, the current study is limited by a cross-sectional design which does not guarantee causation. As a result, further research examining the relationship between emotional awareness and ER strategies longitudinally is needed to shed more light on the issue of how individual developments in emotional awareness and ER strategies increase the risk of depressive symptoms. Relatedly, studies should aim at identifying the developmental patterns of different adaptive ER strategies while taking into account individual differences in emotional awareness.

Second, all variables were assessed with the help of self-report measures. Such an approach can cause shared method variance, which may partially account for the current findings. Furthermore, children and adolescents have been shown to under-report psychopathological symptoms [85]. However, we were not able to exclude the possibility that such a response bias may have occurred. Future research should therefore use multiple-informant reports from parents and teachers alongside youth self-report questionnaires to give a more nuanced as well as balanced picture of youth's depressive symptoms. On a related note, future studies would benefit from combining multiple measurement techniques such as experimental tasks [e.g. 86, 87] and other objective measures [e.g. 88, 89] to assess emotional awareness and ER. Adding physiological measures to understand individual differences in emotional awareness and ER should also be considered [86, 90].

Third, since we used a non-clinical sample, participants displayed a wide range of depressive symptom scores and mean depressive symptom scores were relatively low so that they did not reach the threshold for clinical depression for

the majority of youth. Consequently, results cannot be generalized to clinically depressed youth. Although it is important to study non-clinical samples from a developmental point of view, future areas of research should include investigating the proposed relationships in a clinical sample.

Last, we did not include a measure of anxiety symptoms. Since there is a high comorbidity amongst MDD and anxiety disorders [91], further research should also incorporate measures assessing anxiety symptoms to clarify whether the observed relationships are specific to depression. Based on previous research [33, 34], it is plausible to assume that different relationships among emotional awareness and ER strategies will emerge for understanding anxiety disorders.

Clinical implications

The present study suggests that a lack of adaptive ER strategies plays an important role in the explanation of depressive symptoms. This is consistent with clinical observations and research showing that youth who suffer from MDD have fewer ER strategies at their disposal and those that they do employ are less effective [45, 92, 93]. Therefore, teaching youth adaptive ER strategies to cope with the increased levels of negative effect, accompanying the adolescent period, could be an important factor to help decrease the risk of developing depressive symptoms during this critical time period. Notably, the current study's findings suggest that emotional awareness is a specific skill that is fundamental before learning such adaptive ER strategies [11]. As a result, clinical practitioners should aim at enhancing emotional awareness before targeting difficulties in ER strategies. Teaching youth to identify, explain, and discern their own as well as others' emotional experiences [16] may have a positive impact on youth's ability to learn—and effectively use adaptive ER strategies in everyday life. Furthermore, our finding that the use of maladaptive ER strategies was also of significant importance for understanding youth depressive symptoms suggests that apart from learning youth adaptive ER strategies, clinical practitioners should also aim at identifying and targeting individual vulnerabilities in terms of maladaptive ER strategies such as rumination.

To conclude, the current study suggests that emotional awareness is indirectly related to emotional functioning through adaptive ER strategies. More specific, results suggest that without the ability to identify the specific emotion that one is experiencing, choosing an appropriate and effective strategy to alleviate this state will be inadequate. Therefore, increasing adolescents' awareness to emotions might be a good first step to facilitate adaptive ER. Furthermore, current results underline the importance of taking into account both adaptive and maladaptive ER strategies for understanding vulnerabilities to youth depression, suggesting that these

ER strategies each provide a unique pathway in defining vulnerability to depression.

Compliance with ethical standards

Conflict of interest Prof. Dr. Caroline Braet made an authorized version of the translated Children's Depression Inventory (CDI) in 2002 and the FEEL-kj in 2013. She receives royalties on the sale of these instruments.

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