

Chapter 2

Emotional Dysregulation

Emotion Regulation Gone Wrong

Underdeveloped Emotion Regulation

Successful accomplishment of the developmental tasks of childhood and adolescence requires emotion regulation, and the ability to regulate their emotions translates into physical and mental health for students. Taking a look at what can happen when age-appropriate emotion regulation has not been achieved will clarify the importance of emotion regulation in work with children and adolescents.

The failure to regulate emotion is called dysregulation. When temporary, it can cause symptoms of anxiety, possibly even intense discomfort, poorly controlled behavior, and/or withdrawal. If poor regulation is fairly constant, it can be manifested in the disorders we observe in some children (Dodge and Garber 1991). Dysregulated emotion is entwined with many of the psychological disorders we identify in young people; in fact, according to Gross (1998b), it is implicated in many of the disorders described in the *Diagnostic and Statistical Manual of the American Psychiatric Association* (DSM). It is involved in *more than half* of the DSM-IV Axis I disorders and in all of the Axis II disorders, and it has been called a *hallmark* of psychopathology (Beauchaine, Gatzke-Kopp, and Mead 2006).

Patterns of emotion regulation that strongly interfere with competence can become symptoms of a disorder. They can also place a student at risk for developing a disorder or for having problematic interpersonal relationships (Shipman et al. 2004). For example, problems regulating negative emotions are related to internalizing disorders such as anxiety and/or depression, and difficulty with a negative emotion such as anger may be related to externalizing disorders or “acting out” (Gross, 1998b). Emotion dysregulation is actually related to both types of problems; i.e., internalizing and externalizing behaviors. Children who exhibit behaviors associated with internalizing and/or externalizing disorders generally exhibit *more extreme* and *more frequent* emotions.

Negative affect is more important than positive affect when considering psychopathology (Sim and Zeman 2006). Difficulty dissipating or decreasing negative emotions is associated with both internalizing and externalizing

difficulties. This can be thought of as a problem of calming down or simply down regulating emotions (Silk, Shaw, Lane, Unikel, and Kovacs 2005). It is important to keep in mind that the exact etiology of self-regulatory problems is probably a function of many variables acting together (Behncke 2002). Difficulty with emotion regulation is problematic but is certainly not the only cause of identifiable disorders of childhood.

Emotion dysregulation plays a role in:

- Physiological disorders
- Biologically based disorders
- Disorders caused by stress
- Psychological disorders

One should keep in mind that many “psychological disorders” are strongly connected to biology. It is helpful to explore some of the cognitive variables such as negative emotionality, effortful control, and attention that complicate a child’s ability to develop age-appropriate emotion regulation.

Physiological Symptoms and Disorders

There are multiple physiological symptoms and disorders associated with emotion dysregulation. Some of these include: (a) pain, (b) smoking, (c) cutting, (d) eating disorders, and (e) addiction. Researchers have demonstrated a connection between physiological complaints and negative emotionality (Hagekull and Bohlin 2004). Some children experience decreased ability to regulate pain. Recurrent abdominal pain is a common physical complaint, experienced by 10 to 30 percent of school-age children. Children who have poor pain regulation focus on pain, feel it to a greater extent than their peers, and do not cope well with it (Boyer, Compas, Stanger, Colletti, Konik, Morrow, and Thomsen 2005). The role of emotion dysregulation in the development of somatoform disorders, where the primary symptom is pain that is not part of any identifiable disorder, has been explored. Waller and Scheidt (2006) connect these disorders to a decreased ability to experience and differentiate emotions as well as to the inability to express emotions in a healthy manner.

Adolescents who do not cope well with anger may use cigarettes as way to manage emotion. Nicotine decreases the intensity and frequency of felt anger, and this is especially notable in adolescents with a high level of hostility (Audrain-McGovern, Rodriguez, Tercyak, Neuner, and Moss 2006). Negative emotions cause adolescents to fail should they decide to try to stop smoking. Anxiety increases smoking behaviors, as smoking helps individuals who experience anxiety feel better (Tice, Bratslavsky, and Baumeister 2001). These relationships help explain at least in part why some adolescents are more inclined to start smoking and why it is difficult for others to quit. As soon as the adolescent who has given

up cigarettes is faced with a stressful situation, the old habit of using smoking to feel better may prevail.

Negative affect is tightly connected to clinical and subclinical eating disorders. Chronic negative feelings and negative mood along with difficulty identifying and naming one's emotional states places young people at risk for using eating behaviors to regulate negative emotions (Sim and Zeman 2006). Children and adolescents with eating disorders experience a cycle involving emotion and food so that emotional distress results in eating, which in turn, leads to increased distress, which triggers even more eating.

Behavioral control of many types breaks down when moods are negative. Negative moods result in regulatory failure before, during, and after treatment. For example, during treatment, efforts to stop drinking alcohol are more successful when negative emotions can be kept under control. Inability to tolerate certain emotional states has been associated with several other disorders and behaviors including cutting, bingeing, and excessive exercise with vomiting (Whiteside, Hunter, Dunn, Palmquist, and Naputi 2003). When associated with eating disorders, this model ties eating disorders in particular with difficulty in emotion regulation once an adolescent becomes upset. Fresco, Wolfson, Crowther, and Docherty (2002) describe problems with eating disorders caused by worry, and indicate that bingeing and purging are used to reduce intense emotion. The same research group reports a connection between generalized anxiety disorders and deficits in adaptive emotion regulation.

Role of Emotional Dysregulation in Many Childhood Disorders

Many childhood disorders involve difficulties with emotion regulation, and a quick review of the list will make that clear. Emotional dysregulation is a significant marker for both externalizing and internalizing disorders. The concept of externalizing disorders refers to conduct or disruptive disorders, whereas internalizing disorders refers to emotional problems or any mood disorder (Gjone and Stevenson 1997; Martin 2003). Figure 2.1 lists a number of specific emotion regulation weaknesses associated with both internalizing and externalizing disorders.

Of course, it is important to keep in mind that the distinction between internalizing and externalizing disorders is complicated. Several disorders can be present at once; moreover, it has been determined that all externalizing disorders are related to anxiety disorders (Marmorstein 2007). The association between externalizing disorders is stronger for boys than for girls and at younger ages. For example, according to Marmorstein (2007), there is a strong association between social phobia and all the externalizing disorders as well as between oppositional defiant disorder and overanxious disorder.

Students with Internalizing Disorders

Exhibit more extreme emotions, too intense for the situation.
 Exhibit emotion more frequently.
 Have difficulty decreasing negative emotions.
 Have difficulty down-regulating emotion (Silk, Shaw, et al. 2005).
 Have difficulty inhibiting emotional expression.
 Have difficulty understanding emotional experiences.
 Experience more negative emotions.
 Are less able to calm themselves.
 Are biased toward negative or threatening cues.
 Choose irrelevant, avoidant, or aggressive strategies to deal with negative emotions.
 Do not appreciate that it is possible to change emotional experiences.

Students with Externalizing Disorders

Exhibit more extreme emotions.
 Exhibit emotion more frequently.
 Have difficulty decreasing negative emotions.
 Have difficulty down-regulating emotion (Silk et al. 2005).
 Have difficulty identifying emotional cues.
 Have weak emotional understanding and expression.
 Do not easily recognize their own emotions.
 Tend to focus on the negative aspects of situations.
 Have difficulty with attentional control.
 Have difficulty inhibiting behavior.
 Use aggressive strategies to deal with negative emotions.

(Individual students may exhibit some or many of these symptoms.)

Fig. 2.1 Emotion Regulation Weaknesses Associated with Internalizing and Externalizing Disorders

Borderline Personality Disorder

The most extreme example of emotion dysregulation may well be borderline personality disorder; in fact, “emotional regulation disorder” has been proposed as a more clearly descriptive label (Fleener 1999). Finley-Belgrad and Davies (2006) note that if symptoms are observed over time and a student meets the criteria for borderline personality disorder, it is appropriate to make the diagnosis in children and adolescents. Personality disorders that begin in childhood may be diagnosed if symptoms have been present for at least a year (Ellett, n.d.). Today, borderline personality disorder is thought to be either genetic or caused by both genes and environmental triggers (TARA-APD 2004).

The child or adolescent with borderline personality disorder is primarily unable to regulate his or her emotions. Given that the central issue is emotion dysregulation, children at risk for it and adolescents with the disorder react more intensely and have a particularly hard time returning to a neutral state after upset. These boys and girls are demanding, unpredictable in relationships,

immature, and suspicious (Kernberg, Weiner, and Bardenstein 2000, p. 139). Symptoms of borderline personality disorder have been identified in children as early as fourth to sixth grade (Crick, Murray-Close, and Woods 2005), and such students can be expected to display a combination of externalizing, internalizing, and cognitive symptoms such as executive dysfunctions (Finley-Belgrad and Davies 2006).

Autism Spectrum Disorders

Some researchers have concluded that the problems of children with autism spectrum disorders stem from disorganization and dysregulation, and clearly, the regulation of play is particularly affected in this group. Children with autism may suddenly stop interacting and appear to lose focus. They change behaviors as the action continues, which is disconcerting for peers. They present better and are more successful in interaction with their peers if an adult structures the play (Blanc, Adrien, Roux, and Barthelemy 2005).

Bipolar Disorder

Children with bipolar disorder appear to have poorly regulated arousal systems, and they exhibit pronounced failures of emotion regulation. The complications that may arise from a poorly regulated arousal system include: (a) difficulty managing aggressive impulses, (b) problems with sleep arousal, (c) elevated anxiety and sensitivity, and (d) difficulty managing anger (Papolos and Papolos 2005).

Attention-Deficit Hyperactivity Disorder

From a behavioral point of view, attention-deficit hyperactivity disorder (ADHD) is primarily a disorder of self-regulation. Certainly, children with the combined type of ADHD exhibit emotional dysregulation to a pronounced degree and demonstrate intense negative and positive behaviors as well as impaired self-control (Casey and Durston 2006; Chen and Taylor 2005; Maedgen and Carlson 2000; Voeller 2004; Walcott and Landau 2004).

Young people with ADHD are not as skilled as their peers in identifying and regulating emotions and often feel frustrated. Although they understand a good deal about emotions they are less able to identify how to respond to frustration and do not seem to be able to use coping strategies *while* embroiled in emotional situations. It is important to teach them behavioral skills, but they also must learn strategies for regulating emotions (Scime and Norvilitis 2006). Some

students with ADHD also exhibit oppositional behaviors and are particularly reactive to the negative emotions of anger and hostility.

Aggressive Students

Aggressive students have been found to have problems identifying emotional cues in those with whom they are interacting (Bear, Manning, and Izard 2003). Conduct disordered students with poor control or poor self-regulation, as reported by their teachers, exhibit more behavior problems, have more angry interactions with their peers, and exhibit both anger problems and aggression (Tangney 2004). Students identified as having conduct problems have poor emotion regulation along with weak emotional understanding and expression.

A series of studies reported by several researchers indicates that students with conduct problems experience emotion more intensely than their peers, have more difficulty matching emotions to social cues, are more likely than their peers to feel angry when shown videos that might trigger anger, do not respond as well as their peers to cues used to recognize their own feelings, and tend to not only focus on the negative aspects of situations but to vent emotionally (Fainsilber and Windecker-Nelson 2004; Katz and Windecker-Nelson 2004). Interestingly, girls with conduct disorders may be aware of the power that their intense behavior has over others. Many of them seem to understand that dysregulated behavior provides rewards in both attention from and power over others because their behavior is so intimidating (Kostiuk and Fouts 2002).

Often girls and boys who are at risk for conduct disorders and aggression but have not yet been identified as having these disorders have difficulty with emotion regulation. Those at risk for externalizing problems exhibit more negative emotions, less regulated emotions, and less regulated behaviors than children at low risk (Calkins and Dedmon, 2000). Dennis and Brotman (2003b) indicate that attention and inhibition make independent contributions to whether or not a child will respond with aggression. It is important to identify individual differences in ability to regulate emotion in order to understand a child's risk for psychopathology (Smith 2002).

Internalizing Disorders

Children with externalizing disorders, including ADHD, substance abuse, oppositional disorders, conduct problems, aggression, and even Tourette syndrome evidence problems with emotion regulation and self-control in general (Chen and Taylor 2005). But, it is not only children with externalizing disorders who have difficulty with emotion regulation; those with internalizing disorders

also have difficulty managing their emotions. Young people with anxiety disorders have little understanding that it is possible to change their emotional experience and very little idea of how to inhibit emotional expression (Shipman et al. 2004). Young people with depressive disorders have difficulty regulating negative emotions.

Anxiety and depression appear to be related: in children, anxiety precedes depression. Children and adolescents with internalizing disorders seem to process emotional information differently than their peers, focusing attention on negative or threatening information. Youngsters who develop anxiety disorders focus on *threatening* cues in their environment, whereas children who become depressed are *biased toward negative emotional information* and cannot seem to suppress negative emotion (Beauregard et al. 2004; Ladouceur, Dahl, Williamson, Birmaher, Ryan, and Casey 2005).

Generalized Anxiety Disorder

Emotion dysregulation has been proposed as a central feature in generalized anxiety disorder (GAD). Youngsters with generalized anxiety have difficulty understanding emotional experiences and have little skill or ability to modulate their intense emotions (Mennin, 2006). Not only do they experience more intense emotions than their peers, they are more negative, are less able to calm themselves, and have more physiological symptoms after an anxiety-producing experience (Mennin, Heimberg, Turk, and Fresco 2005). Anxious ambivalent children have difficulty regulating emotions so that their arousal is too intense for the situation, and they both misidentify and misdirect their emotions (Kostiuk and Fouts 2002).

Children and adolescents with anxiety disorders have difficulty handling worries, sadness, and anger. This may be due to the intense degree to which they experience negative emotions. They generally have little confidence in their ability to deal with intensely aroused negative emotions (Suveg and Zeman 2004).

Depressive Disorders

Depressive disorders are very common, with one in five adolescents showing symptoms of unipolar depression before they complete secondary school and one in eleven evidencing depression by the end of middle school. Depressive *symptoms* are even more common, with 10–19 percent of adolescents reporting symptoms at moderate to high levels. It is important to note that young people with significant symptoms of depression appear very much as clinically depressed individuals in regard to social interactions (Gillham, Reivich, Freres, Lascher, Litzinger, Shatté, et al. 2006). Low self-esteem appears to be a clear

risk factor for depression in early adolescence, with girls who act out and girls brought up in families who live in lower socioeconomic areas being particularly vulnerable (MacPhee and Andrews 2006).

As difficult as negative emotions may be for children with internalizing disorders, depressed juveniles do not process *positive* emotional information in the same way as their peers. Moreover, they avoid approach-related behavior (Ladouceur et al. 2005). Rottenberg and Gross (2003) remind us that emotional numbing occurs in individuals who are depressed. A study of depressed adolescents (Silk, Steinberg, and Morris 2003) showed that these young people experienced more intense and variable emotions than their typically developing peers. They were not as competent in regulating their emotions, self-reported more depressive symptoms, and exhibited difficult behaviors. There appear to be differences in girls who are depressed as compared to boys. It is well known that adolescent females report more depressive symptoms and have more difficulty controlling ruminating behaviors than boys. When ruminating, girls think negative thoughts over and over and have significant difficulty thinking in healthier ways (Thayer, Rossy, Ruiz-Padial, and Johnsen 2003).

In general, depressed young people use different and less effective methods for dealing with negative emotions. The strategies they choose to deal with issues and feelings are usually irrelevant or more physically aggressive. They tend to prefer avoidance strategies, such as sleeping or doing nothing, when they do not choose aggressive ones. These children do not believe that what they might think of to do to help themselves will work, nor do they think that the strategies that adults might suggest will work for them. This negative self-efficacy belief, combined with a lack of strategic knowledge, makes it very difficult for depressed juveniles to reduce negative emotions.

A key challenge for these young people is recovering from negative moods. Although they do experience some positive moods, the negative moods cause extensive problems (Garber, Braafladt, and Zeman 1991). Pessimism is associated with efforts to reduce unpleasant feelings when a child is stressed rather than problem solving. In fact, pessimistic students disengage from their goals when they are stressed. Optimism, on the other hand, appears to be a buffer for school stress. Students with optimistic mindsets cope better and report less academic stress (Huan, Yeo, Ang, and Chong 2006).

Negative Emotionality, Effortful Control, and Attention

Negative emotions can be a primary cause of pain and dysfunction among children and adolescents (Beauregard 2004). Negative affect is a mix of moods and emotions such as anger, distress, and agitation, and is prevalent in both externalizing and internalizing disorders. In fact, negative emotionality is a key component of both types of disorders. Students with either type of disorder, or

both, experience considerably more anger than their peers, and their negative emotionality is extreme. Externalizing children have difficulty expressing emotion in appropriate ways, particularly negative emotion, which they in turn manage poorly. They experience intense anger and irritability.

Students who internalize tend to experience more intense sadness, depression, anxiety, and fear. They act out when they cannot meet their needs in any other way. They are angrier, sadder, and more fearful than their typical classmates. They deal with even more negative emotion as they get older and become even less well adjusted over time. Their difficulties with negative emotionality as they grow older has been (at least in part) linked to experiences in which they have not been successful in regulating emotions (Eisenberg, Sadovsky, et al. 2005). Ability to suppress negative emotion determines a student's tendency toward aggression (Davidson, Putnam, and Larson 2000).

Fox and Calkins (2003) suggest that three variables are related to emotion regulation:

- Executive functions
- Effortful control
- Attention

These three general cognitive processes affect an individual's ability to control emotion.

First, two types of executive functioning are particularly important: self-directedness or drive and performance control. The latter must be brought to bear before initiating behavior; it must be utilized while the behavior is being carried out and then brought to bear later, after the behavior or task has been terminated. Fox (1998) indicates that other executive functions, including switching set (changing behavior or thinking midstream), planning, generating alternative responses, or strategies to reach goals, may be involved as well.

Second, effortful control is involved as the child's ability to inhibit responding or not to respond to environmental triggers comes into play. It is also related to the ability to remain vigilant. These control processes regulate behavioral tendencies to approach or avoid situations. They also relate to whether or not a child will react to positive or negative emotions. Effortful control is required so that the child can act against a tendency to react in a particular manner, so that his or her behavior in a given context is appropriate. Regulating an emotional response requires effort, just as controlling impulses requires it (Fox and Calkins 2003).

Conduct problems in students are associated with poor skills in effortful control, weak inhibition, and difficulties sustaining attention (Dennis and Brotman 2003b). Students with externalizing disorders are low in all kinds of effortful control (Eisenberg, Sadovsky, et al. 2005). Studies indicate that effortful control in typically developing children rises sharply at around four years of age. This rise is related to a developing ability to modulate impulsivity, in which the child is becoming more competent through the use of strategies taught by

the parents. At this age children work to control all behavior, but as they get older they tend to exert effortful control when anxious. There are clear age and individual differences in self-regulation. Young people who internalize exert efforts in anticipation, ahead of encountering a stressor (Lewis and Stieben 2004). Those who externalize act first and think afterward.

Third, studies show that attentional processes are involved when emotional information is processed. The ability to focus attention is related to emotional self-control. Attention used in this context refers to executive attention control. Children with stronger ability to focus attention and thus have lower distractibility are more likely to experience positive rather than negative emotions. They are also more likely to approach their peers in a positive way and remain engaged once they are interacting with others. They are comfortable asking others to play and can follow the action of the game. Young people with better ability to control their attention are also better at controlling their emotions. They remain in control when the play action does not go their way. In order to shift attention away from stressful negative triggers toward something positive, executive attention must be under conscious control (Fox and Calkins 2003; Ladouceur et al. 2005).

Externalizing juveniles have difficulties with attentional processes that relate to dealing with negative emotions. Children who internalize have difficulty shifting their attention away from cues or triggers in the environment that cause them distress. The ability to shift attention is involved not only in social interactions but in academic contexts as well (Eisenberg et al. 2005). A weak ability to control attention by shifting it or refocusing predicts behavioral difficulties in both early and middle childhood. When a child can focus on something positive and can draw his or her attention away from negative stimuli or away from something threatening, he or she will function better. Young people who have stronger tendencies to be drawn to negative emotions are most in need of attention control in order to deal with feelings of anger and tendencies to act out (Shipman et al. 2004). The ability to shift attention from negative toward neutral or positive stimuli appears to be especially important in *shutting down* negative emotion (Eisenberg, Sadovsky, Spinrad, Fabes, et al. 2005).

Attention may be the key connection between emotion regulation and processing social situations. Attention is required in order to organize thoughts and feelings to fit a given context. Students with poor attention regulation are at a disadvantage in social situations and demonstrate problems in social competence. They are less well liked by their peers and less well accepted (Gross, 1998b; Parke, Simpkins, McDowell, Kim, Killian, Dennis, Flyr, Wild, and Rah 2002). It has been demonstrated at several different ages that children who lack social competence and children who experience high negative emotionality have low attentional persistence in common (Huizinga, Dolan, and van der Molen 2006). Behavioral inhibition is also linked to executive functions (Davis, A. 2006).

Implications for Helping Students in Schools

Understanding the pervasiveness of difficulties in emotion regulation among students with social and emotional problems and disorders, as well as among children at risk, leads to an awareness of the need to develop interventions to ameliorate some of the stresses that these vulnerable young people have to deal with. Before taking an in-depth look at specific strategies and approaches, it may be helpful to review suggestions made by researchers studying the role that emotional regulation plays in the various disorders described here.

Researchers suggest that students of elementary and middle school age have to be exposed to one of the several evidence-based curricula that directly teach social and emotional competence (Blair 2002). Successful preschool programs have been developed that increase children's knowledge about emotions and help them become more aware of their own and others' emotions (Smith 2002), and there are many social-emotional learning curricula from which to choose. It is important to research the effectiveness of a program and to match the curriculum to local needs.

For elementary school-aged students, specific skills such as how to distract and soothe or calm oneself are important. Listing the positives and negatives of stressful or potentially stressful events and situations, learning to act differently from the way one has acted in the past, and "negotiating" are skills that have to be taught (Miller 2002). Since anger is often the result of blocked goals, it is important to teach children to think of more appropriate ways to get what they want or need (Fox 1998). It is vitally important for aggressive children to master the ability to inhibit behavior, as children with externalizing disorders have specific deficits in this area and their anger will fluctuate more when they cannot inhibit behavior (Dennis and Brotman 2003a; Hoeksma, Oosterlaan, and Shipper 2004). A program that improves parents' awareness of emotion may be particularly important for families that include younger children with behavior problems (Fainsilber and Windecker-Nelson 2004).

Cognitive-behavioral interventions and cognitive restructuring (thinking about stressors in a different, more positive way) are frequently recommended for decreasing negative affect for late-elementary, middle school, and high school students (Chen and Taylor 2005; Dodge and Garber 1991; Miller, Williams, and McCoy 2004). More specific skills such as shifting attention toward positive moods, activities, and events are important, as are engaging in pleasant activities, problem solving, utilizing available resources, and techniques for questioning one's negative thinking (Garber et al. 1991; Ladouceur et al. 2005; Woller 2006).

Group interventions that teach stress tolerance, improve interpersonal skills, and help students become more aware have been recommended, along with improving emotion perception and interpretation, goal setting, generating alternative responses, and evaluating behavioral responses (Garber et al. 1991; TARA-APD 2004). Prevention programs developed for adolescents

that may be helpful include problem solving, coping with anger, examining the consequences of behavior before acting upon emotions, and refusal skills training (Audrain-McGovern et al. 2006).

More specific interventions may be needed for the most involved students and those identified with disorders. For example, teaching adults to model facial expressions when interacting with children who have autistic spectrum disorders is important because these students do not spontaneously display the emotions they are experiencing. They do not always understand tone of voice or read body language well. Teaching children with autism to distract themselves by engaging in motorically active behaviors is likely to be an effective strategy and can sometimes be taught easily (Bryson, Landry, Czapinski, McConnell, Rombough, and Wainwright 2004).

Specific strategies will be needed to help all children cope with stress and negative emotions. Research with individuals who have serious illnesses provides some information about the strategies that may be helpful. The literature on coping with cancer in childhood, for instance, has identified some specific strategies that are important:

- An optimistic outlook
- A minimizing perspective
- Problem solving
- Positively reinterpreting situations
- Self-restraint
- Finding social support

These have been demonstrated to be helpful, along with a belief that one is capable of coping successfully (Livneh 2000).

There are several considerations in regard to interventions and teaching approaches. First, a universal intervention designed for all students with the goal of teaching them about emotions and their regulation could not only serve as a prevention tool for typically developing children, but would also be helpful for students who are already exhibiting difficulties with emotion regulation. Second, more focused and targeted interventions may be needed for students with identified difficulties. Third, the intervention must be matched with specific needs. For some children, control of behavior or training inhibition must be added to emotion regulation strategies. For others, the appropriate ways to express emotion must be taught. For still others, enlisting a parent will greatly enhance the power of the intervention.