

Emotional Intelligence

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Glossary

Ability model of emotional intelligence A theoretical perspective that conceives of emotional intelligence as comprising a small number of mental abilities relating to perception, understanding, and management of emotion.

Ability test A test that consists of a number of tasks designed to assess a person's skill.

Assessment of Children's Emotion Skills A test that assesses a child's ability to identify emotions and understand their role in social situations.

Diagnostic Analysis of Nonverbal Accuracy Scale A test that measures one's ability to perceive others' emotions.

Emotional and Social Competence Inventory A multi-rater measure of emotional and social competencies.

EQ-I A widely used measure of 'trait' emotional intelligence.

Mayer-Salovey-Caruso Emotional Intelligence Test A widely used test for assessing emotional intelligence based on the ability model.

Multi-rater assessment An approach for measuring a person's emotional intelligence (EI) by asking several people who know the person to rate him or her on a number of items related to EI. It is often referred to as '360-degree assessment' in work contexts.

Profile of Nonverbal Sensitivity A test that measures one's ability to perceive emotions in others based on their nonverbal behavior.

RULER A classroom-based program for improving children's emotional intelligence.

Self-directed learning An approach in which the learner sets his or her own learning goals based on feedback from a number of different assessment activities and tests.

Self-report test A test in which a person answers a number of questions about his or her traits, abilities, or attitudes.

Situational Test of Emotion Management Measures a person's ability to manage emotions by indicating how he or she would respond to different situations.

Situational Test of Emotion Understanding Assesses one's ability to understand the emotional dynamics in different situations.

Social and emotional learning programs Refers to educational programs for children and youth designed to increase the learners' social and emotional competence.

Social Problem-solving/Social Decision-making Program An educational program for enhancing children's social and emotional competence.

'Trait' emotional intelligence A theoretical perspective that conceives of emotional intelligence as comprising a large, diverse set of skills, abilities, and traits conducive to positive adaptation and associated with emotional perception, knowledge, or regulation.

Introduction

Interest in the concept of emotional intelligence (EI) is based on three premises. First, emotions play an important role in life. Second, people vary in their ability to perceive, understand, use, and manage emotions. And third, these differences affect individual adaptation in a variety of contexts (Cherniss, 2010a).

Since Daniel Goleman's best-selling book appeared in 1995 (Goleman, 1995), interest in EI has steadily increased. There were 57 000 references to EI in scientific works during the years 1995 to 2000, according to Google Scholar. During the next 5 years, the number increased to 121 000, and again to 162 000 in the years 2007 to 2012 (Schutte, 2013). The concept has attracted the interest of educators, the world of business, and many other fields as well as mental health researchers and practitioners. Even historians and political scientists have employed it to help them make sense of phenomena such as the leadership abilities of Abraham Lincoln (Goodwin, 2005).

Definition of Emotional Intelligence

Although there is some disagreement about how best to define EI, most definitions start with the one offered by Mayer *et al.* (2000, p. 396): "The ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others." The concept of 'intelligence' involves abilities related to abstract reasoning, problem-solving, and the processing of information; EI can thus also be thought of as a type of intelligence that involves reasoning and processing information about emotion in order to achieve one's goals.

The chief executive officer of an engineering firm provided an example of how effective people use EI to achieve their goals and manage challenging situations. She said during an interview, "I know that I have a tendency to cut people off when they're speaking because I want to get to the end and move on. So when I catch myself doing that, I stop and say to myself, 'Wait a minute, I didn't even hear what they were saying. Let me stop and let them continue.' That's my internal

cue to also say to myself, 'Settle down, it's you, not them.'" In this example, the executive's awareness of her impatience with others and how it could adversely affect her achievement of important goals helped her to regulate the emotions associated with her impatience (emotion awareness and understanding). Her ability to perceive when she starts to feel impatient (emotion perception) also helped her to regulate her emotions.

History of Interest in Emotional Intelligence and Related Concepts

Some of the earliest pioneers in the study of intelligence recognized that success in life required more than just the abstract cognitive abilities measured by their Intelligence quotient (IQ) tests. For instance, [Thorndike \(1920\)](#) argued that social intelligence is distinct from cognitive intelligence and that different kinds of tests should be developed to assess it. Twenty years later, [Wechsler \(1943\)](#) observed that certain 'non-intellective' qualities were as important as the cognitive abilities that had been the focus of most research on intelligence up to that point. He wrote: "The main question is whether non-intellective, that is affective and conative abilities are admissible as factors of general intelligence. (My contention) has been that such factors are not only admissible but necessary. I have tried to show that in addition to intellective there are also definite non-intellective factors that determine intelligent behavior. If the foregoing observations are correct, it follows that we cannot expect to measure total intelligence until our tests also include some measures of the non-intellective factors" ([Wechsler, 1943, p. 103](#)).

Interest in these affective and social abilities lagged for the next 40 years, but in the early 1980s, [Gardner \(1983\)](#) and [Sternberg \(1985\)](#) argued that there was more than one type of intelligence, and that intrapersonal, interpersonal, or practical intelligences were critical for successful adaptation. Building on this work, [Salovey and Mayer \(1990\)](#) published their first paper on 'EI,' which they saw as related to but distinct from these other kinds of intelligences.

Research on the neurophysiology of emotion has supported the view that there is a separate kind of intelligence involving emotional awareness and regulation ([Bechara et al., 2007](#)). For instance, [Bar-On et al. \(2003\)](#) studied a group of patients with damage to parts of the brain associated with emotion perception. They compared these patients to another group with damage to structures not associated with emotion perception. They found that the patients with damage to the emotion perception parts of the brain scored lower on a test of EI. They also performed more poorly on tests of social functioning and judgment. However, their scores on a standard IQ test were in the normal range.

Interest in EI also was fueled by a growing body of research suggesting not only that there seem to be different kinds of intelligence, but also traditional verbal intelligence is limited as a predictor of positive life outcomes. Many of us can think of high school or college 'geniuses' who become valedictorians or get perfect scores on standardized tests, but end up achieving far less than classmates with more modest intellectual ability; and research has supported these anecdotal

observations. For instance, [Hunter and Hunter \(1984\)](#) concluded that traditional IQ tests predict no more than about 25% of individual variability in work performance, and for many occupations and roles IQ tests predict 10% or less ([Neisser et al., 1996](#)). This research contributed to interest in EI as a different type of intelligence that might be particularly important for positive adaptation.

Researchers interested in intelligence were not the only ones who recognized the importance of EI and related competencies for successful adaptation. Developmental psychologists have studied 'emotional competence' for decades ([Denham et al., 2003](#); [Hessler and Katz, 2010](#); [Saarni, 1990](#)). Communications researchers also worked on related topics; as [Riggio \(2010\)](#) pointed out, studies on 'nonverbal communication' dating back to the 1970s often involved perception, expression, and regulation of emotion. Research on 'social skills' also can be traced back several decades ([Riggio, 1986](#)).

One can also find early interest in topics related to EI within the mental health field. As [Bar-On \(2012\)](#) noted, interest in alexithymia, a psychological disorder involving deficits in the ability to perceive, label, and understand emotions, dates back to the 1940s. Somewhat later, mental health researchers began to publish research on 'emotional awareness' ([Lane and Schwartz, 1987](#)) and 'psychological mindedness' ([Appelbaum, 1973](#)), which are two other concepts closely related to EI.

Another important line of research related to mental health is the Grant Study of Adult Development, directed for many years by the psychiatrist George Vaillant. This longitudinal study followed a cohort of boys from Harvard College and inner-city Boston for over half a century. The results suggested that abilities such as being able to handle frustration, control emotions, and get along with other people make the biggest difference in how happy and successful people are ([Snarey and Vaillant, 1985](#)).

Thus, interest in topics related to EI slowly developed in a number of different fields until 1995, when Daniel Goleman published his book on the topic ([Goleman, 1995](#)). Intended for a general readership, the book summarized many different lines of research that all pointed to the importance of emotional and social competence for personal and social adjustment. Influenced by Salovey and Mayer's work, he titled his book, *Emotional Intelligence*. It quickly became a worldwide best-seller. Translated into more than 30 languages, it sold over 5 million copies. Since then interest among researchers and practitioners has grown at a steady pace.

Different Models of Emotional Intelligence

Although there is wide agreement on a general definition of EI, there is less consensus when it comes to defining what personal attributes should be considered part of it. There are two basic approaches. The first is to view EI as only a small set of core mental abilities. Mayer and Salovey's four-branch mental ability model is an example of this more focused approach. They propose that EI consists of only four mental abilities: (1) perception and expression of emotion, (2) the use of emotion to facilitate thought, (3) understanding and reasoning about

emotion, and (4) management of emotion (Mayer *et al.*, 2011).

The other approach includes a much broader range of abilities, traits, skills, and competencies. It began with the question, "What are the personal qualities that are most important for success in life?" The best-known examples are: Bar-On's model of 'emotional-social intelligence' (Bar-On, 2006), Boyatzis and Goleman's 'behavioral' model of emotional and social competence (Boyatzis, 2009), and Petrides's 'trait EI' (Petrides *et al.*, 2007). Initially, models based on this second approach were referred to as 'mixed' because they include a mix of different kinds of personal qualities, such as self-regard, assertiveness, adaptability, stress tolerance, empathy, and influence, as well as the core EI abilities such as emotion perception and emotion management. More recently this second approach has been labeled the 'trait' or 'competency' approach (Cherniss, 2010a; Schutte, 2013).

There has been considerable debate over which of these two basic approaches is the best one. Those who favor the more restrictive approach argue that it is more theoretically coherent and consistent with traditional ways of defining intelligence. Those who favor the broader approach note that it more directly answers the critical question, "What are the qualities that are most important for successful adaptation?" Although there have been some efforts to resolve this debate by suggesting ways of integrating the two approaches (Mayer *et al.*, 2011; Riggio, 2010), consensus has been elusive.

Assessment of Emotional Intelligence

A number of tests for measuring EI have emerged. There are three basic types. The first is an ability test in which the test-taker is presented with a number of tasks designed to assess a person's skill. This approach is much like the one used in traditional IQ tests. An example is a picture of a face with the direction to determine what emotions the person in the picture is experiencing. This task would be designed to measure the test-taker's ability to perceive emotions. The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) is one of the best-known examples of this first approach (Mayer *et al.*, 2012). In addition to ability tests like the MSCEIT that seek to explicitly measure all aspects of EI, there are those that measure one specific component, such as the Diagnostic Analysis of Nonverbal Accuracy (Nowicki and Duke, 1994) and the Profile of Nonverbal Sensitivity (Rosenthal *et al.*, 1979), both of which measure emotion perception.

Ability EI tests also have been devised for children and youth. In addition to a youth version of the MSCEIT (Rivers *et al.*, 2012), there is the Assessment of Children's Emotion Skills (ACES) (Schultz *et al.*, 2001). This test, like the MSCEIT, assesses the child's ability to identify emotions in pictures of faces and to understand the emotions created by social situations and involved in social behavior.

A recent variation on the ability test is based on the 'situation judgment test' paradigm. MacCann and Roberts (2008) have developed two such tests, the Situational Test of Emotion Understanding (STEU) and the Situational Test of Emotion Management (STEM). The first test presents the test-taker with several situations involving emotion, and the test-taker

answers questions tapping his or her understanding of the emotional dynamics. In the second test, the test-taker indicates how he or she would manage the emotions involved in each situation. Early work on the psychometric properties of these tests has been promising (Austin, 2010; Libbrecht and Lievens, 2012). For instance, in one study STEU and STEM scores were correlated with anxiety and stress, and STEM scores were associated with depression (MacCann and Roberts, 2008).

A second assessment approach utilizes a self-report format. Here the test-taker is asked to answer a number of questions about his or her emotional and social abilities. An example might be, 'To what extent are you able to cope well with stressful situations?' The test-taker would then respond by indicating on a numerical scale whether he or she is able to cope well to a 'great extent,' 'not at all,' or somewhere in between. This second approach resembles traditional personality tests. Two of the better known examples are the Emotional Quotient Inventory (EQ-i) (Bar-On, 2006) and the Trait Emotional Intelligence Questionnaire (TEIQue) (Petrides and Furnham, 2003). Some of these self-report tests, such as the EQ-i, also have youth versions (Bar-On and Parker, 2000).

The third approach is multi-rater assessment. It is similar to the second approach, but it asks people who know the target person to rate that person on a number of items relating to EI. So instead of asking the target person how well he or she copes with stress, the test asks several people who know the target person how well he or she copes. This third approach is sometimes referred to as '360-degree feedback' when used in work contexts. An example of a test that relies primarily on multi-rater assessment to measure EI competencies is the Emotional and Social Competence Inventory (Boyatzis and Sala, 2004).

Each of the three basic measurement approaches has strengths and weaknesses. The ability test provides a more direct evaluation of a person's abilities to perceive, use, and manage emotions. However, like IQ tests it only indicates a person's potential to act in emotionally intelligent ways; it doesn't indicate how much of that potential the person is actually using. Also, scores can be biased due to the social dynamics of the test-taking situation. In addition, the determination of a right or wrong answer is less straightforward with items assessing emotion perception or judgment.

The self-report measure of EI is the easiest to use and thus is especially popular. However, many researchers question whether a self-report measure can provide a truly valid estimate of a person's ability to perceive, express, and manage emotion well (Brackett *et al.*, 2011). It would seem, for instance, that a person who is limited in the ability to perceive and understand emotion might have a difficult time accurately assessing how well he or she is able to cope with stress or empathize with others. Also, self-report measures are susceptible to self-enhancing bias.

The multi-rater assessment is a particularly good measure of how much a person is actually using his or her EI in real-life settings. It thus should have the highest predictive validity. However, this approach is the most complex and expensive to use in practice, and the results can be influenced by the nature of the relationship between the raters and the target person and by the social context in which the assessment occurs. Another limitation of this approach is that EI has intrapersonal

aspects, such as awareness of one's own emotions, which are rarely apparent to others (Smollan and Parry, 2011).

Unfortunately, the different assessment approaches often provide very different results, even when they are supposed to be measuring the same thing. For instance, in one study the researchers looked at the correlations between self-report measures and ability tests based on Mayer *et al.*'s ability model of EI. Contrary to their prediction, they found that the correlations between the two different methods were very low (Joseph and Newman, 2010). In fact, there was less than a 2% overlap in what the two types of tests were measuring. Thus, although now there are several promising instruments for the assessment of EI, all have limitations. Refinements in technology might lead to better approaches in the future.

The Link between Emotional Intelligence and Important Life Outcomes

There is a growing body of research suggesting that both the ability and trait or competency approaches to EI are associated with a number of important life outcomes, including mental health. The link with mental health is not surprising given that so many non-substance related Axis I and II disorders in the *Diagnostic and Statistical Manual of Mental Disorders* (fourth ed.) 'involve some form of emotion dysregulation' (Kotsou *et al.*, 2011).

Looking first at ability EI, a number of studies have found links with mental health outcomes (Mayer *et al.*, 2008). For instance, Brackett *et al.* (2011) found that people who scored higher on the MSCEIT tended to score lower on measures of anxiety, depression, substance abuse disorder, borderline personality disorder, and schizophrenia, with correlation coefficients ranging between $r=0.10$ and $r=0.40$. EI also was positively correlated with measures of general psychological well-being. Utilizing meta-analysis to combine the results of a large number of studies, Martins *et al.* (2010) found a small ($r=0.17$) but statistically significant association.

In research focusing on trait or competency EI, Bar-On's EQ-I has been found to correlate negatively with depression, anxiety, phobia, somatization, obsessive-compulsive traits, suicidal thoughts, mania, borderline personality indicators, psychotic ideation, paranoia, psychopathy and antisocial tendencies, and drug abuse. And the EQ-i also has correlated positively with measures of psychological well-being (Bar-On, 2012). Studies using the TEIQue also have found moderately strong correlations between EI and mental health-related outcomes (Kotsou *et al.*, 2011; Martins *et al.*, 2010).

Research on children also has found a relationship between EI and mental health-related outcomes. In research using the youth version of the MSCEIT, Rivers *et al.* (2012) found that students who scored higher on EI were less likely to have either externalizing or internalizing problems. The correlation was particularly high for school problems ($r = -0.57$). In another study, Lopes *et al.* (2012) found a link between EI as measured by the fourth branch of the MSCEIT (the ability to identify effective strategies for managing emotions in oneself and others) and school adjustment in youth aged 14–17. Other research using the MSCEIT found that EI moderated the relationship between sexual abuse and suicidal behavior in a

sample of adolescents, suggesting that EI could be a protective factor for this and many other types of psychopathology (Cha and Nock, 2009).

Other research suggesting a link between EI and children's mental health involved a meta-analysis of 213 studies on social and emotional learning (SEL) interventions in schools. The researchers found that these interventions, which were designed to improve social and emotional skills, led to fewer conduct problems and a decrease in emotional distress (Durlak *et al.*, 2011).

EI also seems to be important for those who care for people with mental health-related problems. Zeidner *et al.* (2013) found that both trait EI and ability-based emotion management were associated with less compassion fatigue.

Researchers have also found links between EI and social functioning. For instance, higher ability EI has been linked with more supportive relationships, and lower EI with more conflictual ones (Lopes *et al.*, 2011). Lower ability EI also has been associated with drug and alcohol use, smoking, stealing, and fighting in adolescents (Brackett *et al.*, 2011). Another study, which involved 142 children in an urban school system found that children's emotional knowledge in kindergarten as measured by the ACES exhibited better attention to their teacher (Trentacosta and Izard, 2007).

Research on trait or competency EI has found significant relationships between EI and measures of social functioning such as the size and quality of a person's social network (Austin *et al.*, 2005) and peer relations for children (Petrides *et al.*, 2006). Biggart *et al.* (2010) found that Trait EI was negatively associated with levels of work–family conflict (both family interfering with work and work interfering with family) in a group of employed fathers. And SEL interventions with children have led to increases in positive social behavior (Durlak *et al.*, 2011).

Numerous studies also have explored links between EI and work-related outcomes. Studies of ability EI utilizing the MSCEIT have found that workers who score higher in EI receive higher performance ratings from bosses, peers, and/or subordinates (Brackett *et al.*, 2013, 2011; Iliescu *et al.*, 2012; Joseph and Newman, 2010; O'Boyle *et al.*, 2011). This relationship has been found in many different types of jobs, including clerical, administrative, managerial, and executive positions. Research utilizing the trait or competency approach also has found that workers who score higher in EI tend to be rated as better performers (Joseph and Newman, 2010; O'Boyle *et al.*, 2011).

For children and youth, EI and related abilities also seem to be significantly correlated with academic achievement for children of all ages. For instance, one study found that kindergarten children's scores on the ACES predicted their academic achievement the following year in first grade (Trentacosta and Izard, 2007). Two other studies using the Spanish version of the MSCEIT found a similar relationship for high school students (Marquez *et al.*, 2006; Mestre *et al.*, 2006). And a major meta-analytic study involving over 270 000 kindergarten through high school students found that improvements in emotional and social skills as a result of participating in a SEL program led to an 11 percentile point gain in academic achievement (Durlak *et al.*, 2011).

Some observers have questioned whether EI accounts for any unique variance in these different outcomes. In other words, does knowing a person's EI add to our ability to predict his or her performance at work or mental health status if we already have information about the person's personality and IQ? This question has been tested many times, and when the results are combined it appears that both ability EI and trait or competency EI do account for unique variance (Brackett *et al.*, 2013; Joseph and Newman, 2010; O'Boyle *et al.*, 2011; Petrides *et al.*, 2007).

Given that there are two different approaches to conceptualizing EI, one might ask whether one is a better predictor of important outcomes than the other. A few studies have addressed this question, and most have found that trait or competency EI is the better predictor. Martins *et al.* (2010) found that the trait approaches correlated more strongly with health outcomes than ability approaches in their meta-analysis study ($r=0.34$ vs. $r=0.17$). In another meta-analytic study, focusing on work performance as an outcome, Joseph and Newman also found that trait EI was the better predictor ($r=0.47$ vs. $r=0.18$). A third meta-analytic study (O'Boyle *et al.*, 2011), which also looked at work performance, also found that trait or competency EI was a better predictor than ability EI, but the difference in the size of the correlations was smaller ($r=0.30$ vs. $r=0.24$).

Gender, Ethnicity, and Age Differences

The research on gender and EI is mixed. In general, women outperform men when EI is measured by the abilities-based MSCEIT (Brackett *et al.*, 2013, 2004, 2011, 2006; Corcoran and Tormey, 2012; Mayer *et al.*, 2002). However, the results are less straightforward for self-report tests based on a trait or competency model. For instance, research by Bar-On (1997) and Petrides and Furnham (2000) has shown no significant gender differences in total EI scores on the EQ-I or the EI Scale (EIS). But other studies involving the same measures found that women outperformed men (Mandell and Pherwani, 2003; Schutte *et al.*, 1998; Van Rooy *et al.*, 2005).

A more consistent pattern has emerged when comparing men and women on specific facets of trait or competency EI. In general, women have scored higher in areas relating to emotional awareness, empathy, and interpersonal relationships, whereas men scored higher in such areas as positive self-regard, stress tolerance, and optimism (Bar-On, 1997; Petrides and Furnham, 2000). Men also tend to overestimate their EI more than women (Brackett *et al.*, 2006; Petrides and Furnham, 2000).

Research looking at the relationship between overall EI and race or ethnicity is even more mixed. For example, studies of trait or competency EI, utilizing the EQ-I or the Emotional Competence Inventory, found no significant association (Bar-On, 1997; Hay Group McClelland Center for Research and Innovation and Wolff, 2005). However, in a study by Van Rooy *et al.* (2005) using the EIS, Hispanic respondents scored higher than non-Hispanic Whites. For ability EI, Mayer *et al.* (2002) found that Whites and Hispanics scored slightly higher on the MSCEIT than did Blacks and Asians on total EI and on

three of the four subscales (Facilitating, Understanding, and Managing Emotion).

Findings for the relationship between EI and age are more consistent. While cognitive abilities tend to decline with age, most studies have found a positive correlation between age and EI for both ability and trait or competency EI (Bar-On, 1997; Hay Group, 2005; Mayer *et al.*, 2002; Van Rooy *et al.*, 2005). Greater life experience and emotional development are possible reasons for higher scores in older respondents.

It should be noted, however, that these differences in EI are based on averages, and the differences are not large. Knowing a person is male or female, for instance, says little about that person's EI level. Also, it is not clear whether these results reflect true differences in EI or characteristics of the measures, samples, or procedures used in the research.

Strategies for Improving EI

There now is some evidence to suggest that both approaches to EI can be increased for adults as well as children through training interventions, but the evidence is stronger for the trait or competency models. Several published studies involving pre- and post-measures, comparison groups, and follow-up assessments have shown improvements in trait or competency EI for adults (Boyatzis and Saatchioglu, 2008; Cherniss *et al.*, 2010; Kirk *et al.*, 2011; Kotsou *et al.*, 2011; Nelis *et al.*, 2011; Slaski and Cartwright, 2003; Wing *et al.*, 2006) as well as children (Durlak *et al.*, 2011). Some of these studies have even used randomized control groups and long-term follow ups of 6 months or longer. In addition to changes in trait or competency-based EI, some of the training programs have positively impacted mental health functioning (e.g., Nelis *et al.*, 2011; Slaski and Cartwright, 2003), life satisfaction, social relations, and work performance.

Support for the effectiveness of training programs that target ability EI as measured by the MSCEIT is much weaker. There have been only three studies reported in the literature, and only one of those appeared in a refereed journal (Crombie *et al.*, 2011); one was a doctoral dissertation (Chang, 2006); and the other an unpublished 'working paper' (Reuben *et al.*, 2009).

Several different kinds of training programs have been found to be effective (Cherniss and Adler, 2000). Looking first at adults, the most common type involves a mixture of lecture, discussion, demonstration, role playing, and other experiential activities delivered in a group setting. An example is the program described in Nelis *et al.* (2011). Their program was designed to enhance each of the core EI abilities (e.g., understanding emotions and identifying emotions). In addition to the group sessions, participants reported their emotional experiences each day in a personal diary for at least two weeks. They also received two emails each week for six weeks. The emails reminded them of the material covered in class and also included an exercise for them to perform.

A second training approach is based on the principles of self-directed learning (Boyatzis, 2002). One of the best-known examples is a semester-long course for MBA students at Case Western Reserve University's Weatherhead School of Management (Boyatzis, 1994). The course begins with several weeks of

assessment. The results are then shared with the students, and they are helped to use them to create a development plan for the rest of their time in the program. They are provided with lists of resources they can draw upon to develop the competencies they targeted for development, and they meet regularly with a mentor and a small group of fellow students who provide ongoing support.

A third approach to developing EI competencies involves the 'process-designed training' group (Cherniss, 2010b; Cherniss *et al.*, 2010). A typical example involved a group of nine individuals who met once each month for 9 months and then ended the year with a weekend retreat. The process then was repeated for a second year. The group was moderated by a specially trained leader during the first year; after that, members of the group took the role of moderator. The sessions were used to help the participants learn to use important EI competencies in interacting with one another. They then were given exercises to do between sessions that encouraged them to apply the new skills on the job and in their personal lives. Each session followed a set format in which one participant described a current concern and then group members asked questions designed to help the target person to gain greater clarity into the situation.

Strategies for increasing EI in children (also known as 'SEL') also are varied. Most of them involve school-based programs that target the core EI abilities of emotion recognition and regulation along with EI-related competencies such as decision-making, cooperation, and communication (Elias *et al.*, 1997). One SEL program that is based explicitly on the ability model of EI is The RULER program (Reyes *et al.*, 2012). This program uses activities such as morning meetings in which "tools such as the Charter and the Mood Meter help teachers and students to identify the feelings they are bringing to the classroom, determine the best feelings and mood states for specific lessons and activities, and then to select effective strategies to modify or maintain these feelings and moods in order to achieve the learning goals for the day" (Brackett, 2013). Research suggests that the RULER program can be effective in increasing children's EI. For instance, Brackett *et al.* (2012) found that middle school students exposed to the program for 1 year had higher grades and ratings of social and emotional competence compared to students who did not receive the program.

Another example of a program designed to improve emotional and social skills in children is the Social Problem Solving/Social Decision Making Program (Elias and Brune-Butler, 2005). Like The RULER, it is a curriculum-based program that promotes emotional and social competence. The program teaches children self-control skills as well as how to participate appropriately in a group and deal with everyday problems. It utilizes teacher and parent training manuals, direct instruction, video simulations, and role plays. Evaluation studies suggest the program helps prevent disorders such as violence and drug abuse (Elias and Brune-Butler, 2005).

Summary and Recommendations

Within the mental health arena, the idea of EI offers an exciting paradigm for future research and practice. It seems

plausible to assume that many mental disorders involve deficits in EI – that is, the ability to accurately perceive, understand, use, and manage emotions. Viewing mental health in this way can help researchers and practitioners to refine understanding and treatment of a variety of disorders.

Although there is substantial agreement concerning the basic definition of EI, progress in the field would benefit greatly from further refinement. The existence of 'models' of EI that overlap only slightly will continue to sow confusion until there is more consensus concerning which models represent EI and which represent something else.

One recent trend that might help bring about greater clarity is for researchers to focus more on specific facets of EI rather than treat it as a unitary entity. An example is the recent work of Lopes and his colleagues who have chosen in some of their research to focus on the emotion regulation component (Lopes *et al.*, 2011).

Assessment is another area requiring attention in the future. Several current tests show promise, but there are probably better ways of measuring EI. A major challenge is to find new approaches that are effective as well as economical. Video-based simulations, which have been used in other contexts such as the training of airline pilots, represent a promising strategy.

One other recommendation is that we consider to a greater extent how the social context interacts with EI. For instance, it seems likely that the link between EI and mental health (as well as other important outcomes) will be stronger in some situations than others. Also, it seems clear that the same person will act more emotionally intelligent in some situations than in others. These observations suggest that certain settings encourage emotionally intelligent behavior more than others. Therefore, we need to study 'emotionally intelligent contexts' as well as emotionally intelligent people.

See also: Alexithymia. Coping. Empathy. Intelligence and Mental Health. Positive Psychology. Resilience. Self-Regulation

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