

Emotional Intelligence and Physical Health: A New Direction

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**Abstract**

Emotional intelligence refers to the ability identify, understand, manage, and utilize emotions adaptively. High emotional intelligence has been linked with positive physical health outcomes. The majority of previous research in the area suggests that emotional intelligence acts as a facilitator of health behaviour. The research on the effects that exercise have on the regulation and management of emotions suggest the possibility of a new direction for research. Positive health behaviours may influence individual levels of emotional intelligence.

### Emotional Intelligence and Physical Health: A New Direction

Previous research in the domain of individual differences has established that there is a significant relationship between emotional intelligence and health behaviour. Much of this research has concluded that one's emotional intelligence acts as a protective factor against poor health, since those with higher levels of emotional intelligence tend to make healthier choices (Martins, Ramalho, & Morin, 2010; Schutte, Malouff, Thorsteinsson, Bhullar, & Rooke, 2007; Zeidner, Matthews, & Roberts, 2012). These include choosing not to smoke, exercising regularly, and eating a nutritious diet. However, labeling emotional intelligence as protective leads to the assumption that the relationship between emotional intelligence and health is causal in nature. More specifically, it leads to the belief that one's emotional intelligence causes an individual to act in a certain way which affects their health.

Although this may explain one aspect of how our emotional intelligence and health interact, it does not express the complexity of the relationship between the two. Furthermore, it does not allow for the exploration of how healthy behaviour may conversely be affecting one's level of emotional intelligence (Zeidner et al., 2012). This paper will explore that possibility, as well as an analysis of how complex the relationship between emotional intelligence and physical health really is. I will argue that health behaviours could be impacting an individual's level of emotional intelligence, rather than emotional intelligence simply acting as a facilitator of behaviour and subsequent health (Solanki & Lane, 2010; Zeidner et al., 2012). To do so, I will outline the four pathways proposed by previous research as the direction of the relationship with emotional intelligence levels predicting health. Through the example of exercise, I will demonstrate the possibility that each of these pathways could go in a new direction with health influencing emotional intelligence.

### Emotional Intelligence

Emotional intelligence is defined as a set of skills that allow for the accurate appraisal and expression of emotions (Salovey & Mayer, 1990). It is the ability to identify, understand, manage, and utilize emotions adaptively within oneself and in others (Salovey & Mayer, 1990; Goleman, 1995). Identifying emotions involves the perception of emotional cues in interpersonal interaction as well as awareness of one's own emotions. Understanding of these emotions includes acknowledging the complexity of our emotions and using knowledge from previous emotional experiences to enhance the way we think about them. Managing emotions refers to an individual's ability to monitor and regulate reactions, and therefore utilize them as motivation to plan and achieve life goals (Salovey & Mayer, 1990). Emotional intelligence has also been described as being the intersection of emotions and cognition which allows us to behave adaptively (Schutte & Malouff, 2011). This includes recognizing the meaning of emotions and being able to use one's emotions to help solve problems.

Considered pioneers of the area, Peter Salovey and John Mayer published the first formal theory of emotional intelligence in 1990 (Peter & Grinberg, 2005; Salovey & Mayer, 1990; Tsaousis & Nikolau, 2005). Ultimately, it was the book by Daniel Goleman in 1995 that popularized the concept (Goleman, 1995; Parker, Saklofske, Wood, Eastabrook, & Taylor, 2005; Shanwal, Mandel, & Emmerling, 2008). Over twenty-five years of research has produced a robust amount of evidence that emotional intelligence plays an important role in everyday life.

Emotional intelligence is characterized in some of the literature as an ability, which works under the assumption that it involves the cognitive processing of emotional information. This is assessed by using performance based measurement such as the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) (Keefer, Saklofske, & Parker, 2009). Other researchers

consider emotional intelligence to be a dispositional tendency or trait, similar to personality, which is most often assessed by self-report questionnaires like the Trait Meta-Mood Scale (TMMS), the Bar-On Emotional Quotient Inventory (EQ-i), or the Assessing Emotions Scale (AE) (Austin, Saklofske, & Egan, 2005; Keefer et al., 2009). In the domain of research linking emotional intelligence and health, both forms of measurement have yielded strong associations between the two. However, emotional intelligence considered as a trait has been found to be a better predictor of health correlates (Martins et al., 2010).

#### Physiological Links

Biomedical progress over the past century has significantly changed the types of diseases affecting morbidity in the industrialized countries from infectious to those related to chronic stress, unhealthy lifestyle, and health-related behaviours (Keefer et al., 2009; Zeidner et al., 2009). Chronic conditions such as diabetes and high blood pressure are major contributors to illness and disability, and of continuing public concern is the widespread prevalence of health risks associated with smoking, alcohol abuse, and obesity (Keefer et al., 2009; Peter & Brinberg, 2012). Modern day models of disease interpret health and illness as a combination of biological, psychological, and social factors. In recent years, there has been an emphasis on the role of emotions in these processes. Key areas of interest concern the direct physiological links between emotions, stress, and disease and the individual differences in the way people perceive, experience, and cope with distressing experiences (Keefer et al., 2009; Peter & Brinberg, 2012; Salovey, Rothman, Detweiler, & Steward, 2000). Therefore, researchers have acknowledged that the relationship between emotional intelligence and physical health in particular is an important area to direct focus, and determining the motivations behind health behaviour is critically important (Keefer et al., 2009; Zeidner et al., 2012).

Despite extensive knowledge that smoking is a leading cause of death worldwide, smoking rates remain high (Abdollahi; Yaacob, Talib, & Ismail, 2015; Hill & Maggi, 2011). Researchers have found that smoking can act as a coping strategy used to regulate emotion (Abdollahi et al., 2015). However, due to its links to lung disease and cancer, it is a maladaptive strategy, and choosing not to smoke should be characterized as a health behaviour. Studies have shown that there is a negative correlation between high emotional intelligence and smoking (Abdollahi et al., 2015; Hill & Maggi, 2011). Therefore, it has been hypothesized that individuals with greater emotional intelligence tend to use better problem solving skills to offset the pressure to smoke (Abdollahi et al., 2015). What we do not know however, is whether the decision not to smoke has a reciprocal effect on emotional intelligence.

Exercise is a health behaviour which is an important aspect of public health given increasing levels of obesity and its detrimental effects on health (Saklofske et al., 2007). The health benefits of exercise have been well documented, and engaging in regular physical activity is one of the best ways to improve general health (Li, Lu, & Wang, 2009). The association between emotional intelligence and exercise has been shown to be a positive correlation whereby those with higher emotional intelligence tend to exercise more regularly (Bhochhibhoya, Branscum, Taylor, & Hofford, 2014; Li et al., 2009; Saklofske et al., 2007). However, as with smoking, the underlying mechanisms of the relationship have not been thoroughly researched (Saklofske et al., 2007).

A major shortcoming of the current body of research on emotional intelligence and physical health is that the focus has been on the effect that emotional intelligence has on our health, while ignoring the possibility that our behaviours regarding our physical health could be having a similar effect on our level of emotional intelligence. Therefore it would be beneficial to

explore the underlying processes of the relationship to investigate the causal pathways further, a notion suggested by Zeidner et al. (2012). They suggest that simple correlations between the scales used to measure the concepts of emotional intelligence and subjective well-being do not tell us enough about whether emotional intelligence impacts our health or if the opposite interaction is occurring.

#### Pathway 1: Emotional Intelligence as a Facilitator of Good Health Practices

The first pathway that has been proposed by previous research is that emotional intelligence is a facilitator of positive health practices (Zeidner et al., 2012). More specifically, individuals with high emotional intelligence more efficiently maintain health regimens. However, a plausible explanation for the underlying interactions between emotional intelligence and health behaviour is that while emotional intelligence facilitates initial positive health practices, these behaviours in turn help to increase emotional intelligence through the continuation of the behaviour. For example, in a study investigating attitudes toward exercise and emotional intelligence, it was found that while participants with all levels of emotional intelligence believed that exercise had positive outcomes, those with the highest levels of emotional intelligence had the highest levels of actual exercise (Saklofske et al., 2007). Exercise is widely known by health professionals and the public as a positive health behaviour that can greatly impact individual health (Li et al., 2009; Solanki & Lane, 2010). It is possible then, that those who actually enlist exercise in their health efforts may experience the reciprocal effect of increasing levels of emotional intelligence. Solanki and Lane suggest that experiencing positive emotions during physical exertion may raise awareness that negative emotions can be changed while simultaneously providing a strategy on how to proactively change them (2010). Therefore, it may be possible that the initial decision to participate in exercise has an effect on emotional

intelligence, and continuing to exercise regularly results in higher emotional intelligence. This pathway suggests that individuals use emotional information to initiate a course of action to adopt and maintain a healthy lifestyle, which results in higher levels of emotional intelligence over time (Peter & Brinberg, 2012).

Similarly, Li et al. (2009) posited that physical activity may be working to influence emotional intelligence in a number of ways. In their study of university students' time spent exercising and emotional intelligence, students who met the recommended level of exercise had higher total emotional intelligence scores. Furthermore, these students also had higher scores on the intrapersonal, interpersonal, stress management, general mood, and adaptability subscales of the Bar-On EQ-i. These results are consistent with previous findings that exercise has positive effects on individual's sense of self-perception, empathy, social responsibility, and stress management which are all aspects of emotional intelligence (Li et al., 2009). Therefore, although it may involve a certain level of emotional intelligence to initiate physical activity, it is clear that exercise may have a considerable influence on emotional intelligence.

#### Pathway 2: Emotional Intelligence Lowers Stress Reactivity

A second pathway proposed by researchers is that individuals with higher emotional intelligence have lower stress reactivity, which allows them to reap the health benefits of reduced stress (Zeidner et al., 2012). However, the literature has focused on the effect that emotional intelligence levels have on stress related to physical health, and not on how health behaviours may affect emotional intelligence through the same pathway. Specifically, researchers hypothesize that individuals with high emotional intelligence give more positive appraisals to potential stressors, lowering the negative effects that stress have on health (Keefer et al., 2009;

Zeidner et al., 2012). In several studies of stress during mood inducing situations, individuals with higher emotional intelligence tend to maintain lower cortisol levels (Keefer et al., 2009).

Returning to the example of exercise, as mentioned previously studies have shown that individuals who participate in more physical activity score higher on the stress management subscales of emotional intelligence tests (Li et al., 2009). Exercise has previously been shown to reduce anxiety and stress through the excretion of endorphins which relieve pain and pressure (Bhochhibhoya et al., 2014; Li et al., 2009). It is likely then that the health behaviour of exercising is influencing emotional intelligence through reducing stress and allowing for better stress management (Solanki & Lane, 2010).

### Pathway 3: Emotional Intelligence Works through Rich Coping Mechanisms Which Have Added Health Benefits

A third pathway that has been proposed is that higher emotional intelligence individuals have access to richer coping resources which themselves carry added health benefits (Zeidner et al., 2012). For example, individuals with higher emotional intelligence are more likely to use coping behaviours during times of stress that are health enhancing such as following a nutritious diet, taking regular exercise, and ensuring they get adequate sleep (Zeidner et al., 2012). The abilities related to emotional intelligence are proposed to be a personal resource for proactive coping (Keefer et al., 2009). However, it is possible that the positive emotions gained from using these coping resources influence behaviour as a feedback system (Baumeister, Vohs, DeWall, & Zhang, 2007; Solanki & Lane, 2010). That is, the positive emotions that follow activities such as exercise or adequate rest contribute to decision making and behaviour, thus increasing the arsenal of adaptive coping mechanisms at an individual's availability (Baumeister et al., 2007). Emotional intelligence levels in turn, would be strengthened by the health behaviour.

#### Pathway 4: Emotional Intelligence Prevents Maladaptive Coping Behaviour

The final proposed pathway is that individuals high in emotional intelligence have better self-regulation tendencies which make them less likely to develop maladaptive habits (Zeidner et al., 2012). That is, due to their sophisticated ability for self-insight, these individuals are much more likely to partake in behaviour which promotes health and longevity. However, many external factors can contribute to an individual's decision to partake in health behaviours such as exercise (Li et al., 2009; Solanki & Lane, 2010). For example, in a cross-sectional study investigating the reasons why people exercise and some do not, the reasons reported varied by age, gender, and education just to name a few (Skov-Ettrup, Petersen, Curtis, Lykke, Christensen, & Tolstrup, 2014). Therefore, although emotional intelligence may be an influencing factor in an individual's decision to live a healthy lifestyle, it is not the only one. Furthermore, given what we know about the effects of exercise on mood-regulation and stress reduction, it is possible that these effects are motivation enough to sustain a schedule of regular physical activity. As discussed throughout the previous pathways, the maintenance of health behaviours like exercise possibly work to increase emotional intelligence.

Of course all of these suggested pathways are highly dependent on whether emotional intelligence has malleability or is static in nature - that is whether emotional intelligence can change, or more relevant, whether it can be improved. Several studies have shown that emotional intelligence without intervention increases slightly over time, assumedly as an effect of age and maturity (Parker et al., 2005). However, other studies have shown that through intervention, different aspects of emotional intelligence can be targeted and improved (Nelis, Quoidbach, Mikolajczak, & Hansenne, 2009; Peter & Brinberg, 2012; Saklofske et al., 2007). Furthermore, these changes tend to be long-lasting rather than short term (Nelis et al., 2009).

In a study conducted by Peter & Brinberg (2012) investigating how emotional intelligence affected quality decisions related to health, just one 75 minute session was successful in developing emotional intelligence. This means that it is possible to learn the correct perception of emotions, which the authors suggest has an impact on health related decision making. Additionally, Nelis et al. (2009) found that their four week program of emotional intelligence training sessions resulted in a significant change in emotion identification and management which remained significant after six months. These results also suggest that at least some emotional abilities can be improved (Nelis et al., 2009). This is evidence that emotional intelligence can indeed be changed, allowing for the possibility that health behaviours may also be a source for increasing emotional intelligence.

#### Conclusion

Emotional intelligence has been shown to be related to a wide range of health outcomes including a link to physical health (Martins et al., 2010; Schutte et al., 2007; Zeidner et al., 2012). Since emotional intelligence has evidently been changeable through training sessions, it is evident that it is malleable and can be increased (Nelis et al., 2009; Peter & Brinberg, 2012; Saklofske et al., 2007). It has also been shown that exercise has positive effects on mood and emotion regulation (Bhochhibhoya et al., 2014; Li et al., 2009; Saklofske et al., 2007). Therefore it is possible that health behaviours may influence emotional intelligence through several different pathways, rather than the relationship between the two being one-directional. Although it remains likely that emotional intelligence acts as a facilitator of positive health behaviours, it seems just as likely that by participating in activities that are known to be beneficial to physical health an individual may also garner emotional health benefits as well (Bhochhibhoya et al., 2014; Solanki & Lane, 2010).

Continuing research on the relationship between emotional intelligence and physical health remains vital to public health as rates of chronic illnesses related to unhealthy lifestyles continue to climb (Keefer et al., 2009; Zeidner et al., 2012). Although public knowledge of the benefits of health behaviours such as exercise is widespread, knowledge does not always translate into action. Emotional intelligence has been shown to mediate this through some individuals with high emotional perception, understanding, and management. Those with low emotional intelligence tend not to make the same health benefiting decisions, however if there is a way to increase their emotional intelligence we would expect to see lasting, positive effects on overall health (Nelis et al., Saklofske et al., 2007). It is possible that increasing emotional intelligence may be achievable through the initial introduction of a health behaviour into an individual's routine, by training individuals to cope with stress through healthy behaviours, or by managing emotions by using richer coping mechanisms which have added health benefits (Zeidner et al., 2012).

Future research should be sure to acknowledge the physiological links between emotions, stress, and disease (Keefer et al., 2009; Martins et al., 2010). Thus far in the literature the focus has been on the quantitative relationship between emotional intelligence scales and physical health reports rather than the underlying processes, therefore the causal status of emotional intelligence is still not clear (Baumeister et al., 2007; Solanki & Lane, 2010; Zeidner et al., 2012). It is important that future research pinpoints the specific processes through which emotional intelligence impacts individual health and how the behaviours we choose to participate in also influence our level of emotional intelligence (Solanki & Lane, 2010; Zeidner et al., 2012).

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