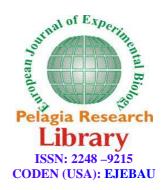
Available online at www.pelagiaresearchlibrary.com



Pelagia Research Library

European Journal of Experimental Biology, 2014, 4(2):188-197



Examining relationship of difficulties in emotion regulation (DiER) with mental health in the first male high school students in Tabriz

Seddiq Asadi, Parvin Asadi, Asghar Tohidifar, Shahrokh Isazadeh, Amir Matinpour, Mohammad Taghi Maghami, Taleb Parhizgar and Abolfazl Hashemzadeh

Department of Educational and Human Sciences, Collage of Psychology, Tabriz Branch, Islamic Azad University, Tabriz, Iran

ABSTRACT

The aim of present study was to investigate the relationship of difficulties in emotion regulation with mental health. We selected 331of first male high school students (14-16 ages) by the use of multi-stage cluster sampling method. We gathered the data by the use of two scales, including Difficulties in Emotion Regulation Scale and General Health Questionnaire and analyzed by Pearson's correlation test and multivariate regression. The obtained results indicated there was a significant relationship between difficulties in emotional regulation with mental health (p<0.05). The multivariate regression analysis indicated that emotional declaration deficit at most and lack of emotional awareness at least in DiER (predictive variables) predicate changes in mental health (criterion variable).

Key words: difficulties in emotion regulation, mental health.

INTRODUCTION

Psychopathologists have long speculated that problems in emotion regulation play a central role in mental health and the development and maintenance of psychiatric disorders and maladaptive behaviors. Indeed, the majority of the disorders found in the current *Diagnostic and Statistical Manual of Mental Disorders* [1] include at least one symptom reflecting a disturbance in emotion.

Some mental health problems, like conflicts, failures, and losses at times seem to conspire to ruin us. We humans have an extraordinary capacity to regulate the emotions occasioned by such travails. Importantly, these regulatory efforts largely determine the impact such difficulties will have on our mental and physical well-being [11, 23].

Given its importance to adaptive functioning, it is not surprising that research on emotion regulation has a long history. Past work has investigated the cellular responses to stress, the behavioral consequences of adopting specific regulatory strategies, and the neural systems involved in simple forms of affective learning and social behavior in rodents and nonhuman primates [9, 23].

In recent years, research on emotion regulation has entered a new phase as functional imaging studies of regulatory phenomena in humans have developed rapidly. This growth has facilitated investigation of human analogs to affective behaviors studied in animals, but, perhaps more importantly, has allowed study of the emotion regulatory power of higher cognitive control processes that are difficult to study in animal models. In so doing, current work on the 'hot' control of emotion draws on rapidly developing cognitive neuroscience models of the 'cold' control of attention and memory [5, 12].

Therefore, the purpose of this study is to investigate the relationship of difficulties in emotion regulation with mental health.

Literature Review

Emotion

Bagozzi et al. (1999) define emotions as "mental states of readiness that arise from appraisals of events or one's own thoughts". Negative emotions, such as anger or frustration, typically stem from blocking one's goals, desire, or rights [16]. Emotions can shape human experiences into positive (satisfactory) or negative (painful), unfolding a wide array of responses that can develop in various forms of Psychopathology, social difficulties and physical illness [25]. Therefore, understanding how humans regulate their emotions is an important aspect of sciences aimed at humans' well being.

Emotion Regulation

Emotion regulation is a topic that means different things to different people. For instance, developmental psychopathologists tend to emphasize the regulatory effects of emotion itself on behavior (e.g., extreme anxiety). Adult psychopathologists tend to focus on emotion regulation as behavior, or what people do with and about their emotional experience. Here, we focus on emotion regulation as a behavior, while recognizing that emotional responding itself can, at times, limit or narrow behavioral options. In this direction, emotion regulation refers to a heterogeneous set of actions that are designed to influence "which emotions we have, when we have them, and how we experience and express them" [24].

The Psychological study of how humans regulate emotions has a long history [28, 47]. A continuous challenge of emotional regulation is to organize people's numerous processes for regulating their emotions. An approach is continuously and clearly to perceive emotions and consider the different points in emotion-generative phenomena processes in which emotions are regulated [25].

With respect to the issue of emotion regulation, Gross and John (2003) indentify that individuals who use suppression emotion regulation are more reluctant to share their negative and positive emotional experience. On the contrary, individuals who use reappraisal, feel free to express and share their emotions. Gross (1998) shows that two different emotion regulations (reappraisal and suppression), have quite different responses in individuals. He shows that suppression in contrast enhances the physiological components of emotional responses.

In this manner, the different factors, such as difficulties in emotion regulation affect on teens' mental health [17, 26, 40, 41, 46].

Emotions and Emotion Regulation

The study of emotion has a long history in psychology, with a good deal of attention paid to describing individual differences in the regulation of emotional states. Our view of emotion is drawn largely from Ekman and Davidson (1994), who conceived of emotions as a complex set of cognitive, behavioral, and physiological responses to internal and external stimuli [28]. We believe that emotions are adaptive and provide vital information regarding internal or external events. They help motivate action (often triggering behavioral responses such as approach or avoidance) and communicate information to others. Although the experience of negative emotion is found in many forms of psychopathology, we do not view negative emotion itself as unhealthy. Instead, we believe that problems with emotion regulation often underlie psychopathology. Our view of emotion regulation corresponds in many ways to the definition put forward by Gross (1998), who describes emotion regulation as "the processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions". Gross also suggests that the process of regulating emotions can lie along a continuum, from "conscious, effortful, and controlled regulation to unconscious, effortless, and automatic regulation". In psychopathology, this

often involves regulation of negative emotional experiences, such as anxiety or low mood, but it also can involve the regulation of the experience and expression of positive mood.

Difficulties in Emotion Regulation

Problems with emotion regulation are central to many forms of psychopathology [10, 23]. One way to classify psychiatric disorders is to consider the degree to which emotions, reported within their syndromal presentation, are over- or underregulated. For example, emotion underregulation is common to disorders such as borderline personality disorder, posttraumatic stress disorder, and many of the anxiety disorders, in which individuals experience intense emotions that they find difficult to regulate. On the other end of the spec trum lie disorders in which overregulation of emotion becomes problematic, such as in obsessive—compulsive personality disorder. In still other disorders, such as bipolar disorder, problems exist with emotion dysregulation. Indeed, problems with emotion regulation have been implicated as a key factor in mood and anxiety disorders [8, 43].

Emotion regulation difficulties also may arise when the strategies are intact but they are implemented poorly, in inflexible, context-insensitive ways that are out of line with one's long-term personal goals in mental health. In psychopathological populations, inappropriate implementation of intact strategies is often seen in cases where emotion regulation strategies that were helpful in childhood are now unhelpful in adulthood [52].

It is believed that adaptive emotion regulation involves choosing and implementing regulation strategies that are appropriate for the context, appropriate for how controllable the internal and external events are, and are in accordance with one's long-term goals [4, 32, 39, 42].

An important skill needed for adaptive situation selection is the ability to understand which future situations will induce which emotional experiences. People are inaccurate at predicting their emotional responses to future scenarios and endanger their well-being [19]. This is particularly the case for people with schizophrenia.

Researchers' View on Emotion Regulation

Researchers have shown that they are poor at predicting how much pleasure they will derive from a future event (anticipatory pleasure). Yet once they experience a rewarding event like having a cigarette or spending time with a family member, persons with schizophrenia report similar amounts of consummatory pleasure as healthy controls [18]. Similarly, persons with depression often underestimate how much they will enjoy a particular event and they avoid it [31].

Overall, there is theoretical [3, 43], experimental [7, 26], and clinical [43] evidence confirming the maladaptive nature of expressive suppression for healthy adults and individuals with psychopathology. Suppression, although theoretically used in efforts to decrease emotional experiencing, appears to paradoxically increase negative emotion in healthy people [26] and people with anxiety [2]. Often, a goal of emotion regulation is decreased negative emotional experience; therefore, expressive suppression is a maladaptive emotion regulation strategy because it does not decrease negative feelings and it increases one's physiological arousal. Furthermore, the habitual suppression of positive emotions can have interpersonal consequences. Suppression of positive emotional expression is maladaptive in that it decreases affiliation and closeness. Emotion-expressive behavior is essential for communicating what one wants and influencing the actions and feelings of others [27].

Researchers suggest that experiential avoidance maintains many mood and anxiety disorders [29, 33]. Acceptance of one's internal reactions (thoughts, feelings, impulses, and sensations) refers to allowing one's reactions to proceed without resisting them in any way. The practice of acceptance allows the rise and passage of emotions without attempts to avoid or control the experience [49].

Mental Health

Mental illness is a term that describes a variety of psychiatric (emotional, perceptual, thinking, and behavioral) problems that vary in intensity and duration, and may recur from time to time. Major mental illnesses include Anxiety, Mood, Eating, and Psychotic Disorders. Mental illnesses are diagnosable conditions that require medical treatment as well as other supports [21].

Promoting student health and well-being has long been a goal of education policies at the secondary school level. Traditionally, the focus has been on physical health and the delivery of programs designed to enhance healthy eating

habits, encourage physical activities, prevent tobacco and substance use, and promote sexual health [6, 35, 45]. However mental health, an essential component of general health and well-being, has been largely absent from the national education agenda [36, 50]. The absence of a mental health focus in secondary schools is especially unfortunate given the fact that adolescence is the life stage during which most mental disorders have their onset [30, 34, 56].

Mental health problems refer to the more common struggles and adjustment difficulties that affect everybody from time to time. These problems tend to happen when people are going through difficult times in life, such as a relationship ending, the death of someone close, conflict in relations with family or friends, or stresses at home, school or work. Feeling stressed or having the blues is a normal response to the psychological or social challenges most people encounter at some time or another. Mental health problems are usually short-term reactions to a particular stressor, such as a loss, painful event, or illness [54].

It is important to play other variables role, like mental health, and physiological health [48], because they use weak encounter ways against stress and have little hopeful to their abilities to confront stress [38].

Social and cultural factors are thought to have an impact on psychological and mental health problems [30].

Emotion Regulation and Mental Health

Deficits in emotion regulation appear to be relevant to the development, maintenance, and treatment of various forms of psychopathology. Increasing evidence demonstrates that deficits in the ability to adaptively cope with challenging emotions are related to depression, borderline personality disorder, substance-use disorders, eating disorders, somatoform disorders, and a variety of other psychopathological symptoms. Unfortunately, studies differ with regard to the conceptualization and assessment of emotion regulation, thus limiting the ability to compare findings across studies [26].

In this manner, the recent study paid these problems attention whether there was a correlation between DiER (emotion responses non-acceptance, difficulties in getting purposive behavior, difficulties in controlling impulses, lack of emotional awareness, limit access to DiER strategies, and lack of emotional clarification) with mental health (MH) (somatic signs, anxiety and sleep disorder, social performance and depression) in the first male high school which on the basis can be carried out on other people in future and reached to more positive results. Thus, the central question of this study is whether predictive variable (DiER) can predict or explain criterion variable (MH), and how much each one is.

MATERIALS AND METHODS

Participants

In this study, the statistical population was the first male high school students in Tabriz (N=2400). 331 of them were random selected as a statistical sample. The sampling method was the multi-stage cluster. From each of the first male high schools were randomly selected two classes and from each class were selected 15 students for responding four questionnaires.

Materials

1. Difficulties in Emotion Regulation Scale (Appendix A). Gratz and Roamer (2004) developed this scale as a self-report index that assesses existing difficulties in emotion regulation in a comprehensive form than existing tools in this manner and has 36 statements and 6 subscales. Subscales include: 1. Non-acceptance of emotional responses (non-acceptance 2. difficulties in obtaining purposive behavior (goals), 3. difficulties in impulse control (impulses), 4. lack of emotional awareness, 5. Limit access to emotional regulation strategies (strategies), and 6.Lack of emotional clarification (clarification). This factor consists of the statements of (1, 4, 5, 7, 9), that shows the level of people's awareness of their emotion and being clarified of these emotions for them.

Results of a studied showed a high internal consistency of the total scale (a=0.93), of non-acceptance (a=0.85), of goals (a=0.89), of impulses (a=0.86), of strategies (a=0.88), and of clarification (a=0.84), and reasonable test-retest reliability for the total score (p<0.01, 0.88), 0.69 for non-acceptance, 0.69 for goals, 0.57for impulses, 0.68 for awareness, 0.89for strategies, and 0.80 for clarification. Its validity indicated a sufficient construct and predictive validity for the test [22].

2. General health questionnaire (GHQ-28).The GHQ-28 (Appendix B) was developed by Goldberg and Hillier in 1979 and the 28 items yield four robust factors with acceptable psychometric properties: somatic symptoms (e.g., run down), anxiety/insomnia (e.g., lost sleep over worry), social dysfunction (e.g., taking longer over things), and severe depression (e.g., life not worth living). The sub-scales represented dimensions of symptomatology but do not necessarily correspond to psychiatric diagnosis. A total score served as a broad index of psychopathology and for identifying caseness with GHQ-28, the total sub- scales was used. All items have a 4-point scoring system that ranges from a 'better/healthier than normal' option, through a 'same as usual' and a 'worse/more than usual' to a 'much worse/more than usual' option. The simple Likert method scoring [0, 1, 2, 3] was applied and respondents with score 9 or more was identified as psychological caseness (14). The psychometric properties of the Persian version of GHQ-28 have been acceptable (15). For instance, a reliability coefficient was calculated for GHQ-28 (a = 0.89) which demonstrated that the GHQ-28 was internally consistent. Its reliability was reported 0.95 by Goldberg (1988), 0.88 by Cheung and Spears (1994) with the use of Cronbach method, 0.93 by Chan (1989).

Procedure

The present study method was correlation as a descriptive research, and the predictive variable (DiER) and the criterion variable (MH) were examined over the first male high school students in Tabriz. To test the study hypothesis, Pearson's correlation coefficient was run. To examine a research question, a multivariate regression analysis was used to predict a criterion variable.

RESULTS

Criterion variable included mental health, and predictive variable consisted of difficulties in emotion regulation. Mean and std. deviation are Mean and std. deviation are14.91 and 5.30 for DiER1, 14.64 and 4.80 for DiER 2, 14.76 and 4.66 for DiER3, 15.35 and 4.88 for DiER4, 18.82 and 6.00 for DiER5, 10.96 and 3.75 for DiER6 for emotion regulation6, and 89.55 and 18.02 for total of DiER (Table 1).

	N	Minimum	Maximum	Mean	Std. Deviation
Emotion Regulation1	331	2.00	31.00	14.9124	5.30822
Emotion Regulation2	331	5.00	35.00	14.6465	4.80140
Emotion Regulation3	331	3.00	27.00	14.7674	4.66615
Emotion Regulation4	331	2.00	30.00	15.3505	4.88515
Emotion Regulation5	331	7.00	36.00	18.8218	6.00971
Emotion Regulation6	331	5.00	25.00	10.9698	3.75286
Total	331	46.00	140.00	89.5559	18.02840
Valid N (listwise)	331				

Table 1 Descriptive statistics of emotion regulation and its subscales

Mean and std. deviation are 5.2024 and 4.346 for mental health1, 5.73 and 4.26 for mental health2, 6.37 and 4.11for mental health3, 5.38 and 5.21for mental health4, and 22.66 and 14.22 for total of mental health (Table 2).

Table 2 Descriptive statistics of mental health and its subscales

	N	Minimum	Maximum	Mean	Std. Deviation
Mental Health1	331	.00	21.00	5.2024	4.34617
Mental Health2	331	.00	19.00	5.7372	4.26761
Mental Health3	331	.00	21.00	6.3746	4.11853
Mental Health4	331	.00	24.00	5.3837	5.21195
Total	331	1.00	70.00	22.6616	14.22249
Valid N (listwise)	331				

Research hypothesis: There is a negative relationship between difficulties in emotion regulation and mental health level

Table 3 indicates that correlation coefficient between DiER and MH is 0.375, at the level of 0.01. The data suggests there is a direct and significant relationship between DiER and MH, and this hypothesis was approved.

Table 3 Correlation coefficient of mental health with difficulties in emotion regulation and its subscales

		DiER	D.IED	DIED	n inn	ninn	ninn	ninn					3.577
١ ,	Variables		DiER	DiER	DiER	DiER	DiER	DiER	MH	MH	MH	MH	MH
	, urmores	1	2	3	4	5	6	Total	1	2	3	4	Total
DiER1	Pearson Correlation	1											
DiER2	Pearson Correlation	0.4**	1										
DiER3	Pearson Correlation	0.3**	0.43**	1									
DiER4	Pearson Correlation	-0.11*	0.1	0.06	1								
DiER5	Pearson Correlation	0.43**	0.44**	0.45**	-0.06	1							
DiER6	Pearson Correlation	0.14**	0.21**	0.18**	0.29**	0.25**	1						
DiER Total	Pearson Correlation	0.61**	0.71**	0.66**	0.33**	0.72**	0.52**	1					
MH1	Pearson Correlation	0.15**	0.23**	0.09	-0.07	0.11	0.12*	0.19**	1				
MH2	Pearson Correlation	0.19**	0.3**	0.16**	0.02	0.29**	0.18**	0.34**	0.58**	1			
MH3	Pearson Correlation	0.17**	0.24**	0.24**	0.1	0.31**	0.2**	0.35**	0.36**	0.48**	1		
MH4	Pearson Correlation	0.17**	0.24**	0.19**	-0.02	0.32**	0.2**	0.31**	0.51**	0.6**	0.47**	1	
M H Total	Pearson Correlation	0.21**	0.32**	0.21**	0	0.33**	0.22**	0.37**	0.77**	0.84**	0.71**	0.84**	1

Table (5) Manual: **. Correlation is significant at the 0.01 level (2-tailed), *. Correlation is significant at the 0.05 level (2-tailed).

Emotion regulation 1: Non-acceptance of emotional responses, Emotion regulation 2: Difficulties in obtaining purposive behavior, Emotion regulation 3: Difficulties in impulse control, Emotion regulation 4: Lack of emotional awareness, Emotion regulation 5: Lack of emotional awareness, Emotion regulation 5: Lack of emotional regulation 5: Lack of emotional clarification, Mental health 1: Somatic symptoms, Mental health 2: Anxiety/insomnia, Mental health 3: Social dysfunction, Mental health 4: Severe depression, Mental health 5: total

Research question: The central question of this study is that: "Can predictive variable (Di ER) predict or explain criterion variable (MH)? And how much is each one?"

The DiER1 and DiER3 variables predict or explain mostly 22%, 38%, and 27% of students' the variance of mental health, respectively (Table 4).

Table 4 Results of multivariable regression analysis of MH in terms of ER 1 and ER 3

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.215a	.046	.043	13.91239
2	.265 ^b	.070	.064	13.75740

a. Predictors: (Constant), EmotionRegulation1 (Non-acceptance of emotional responses), b. Predictors: (Constant), EmotionRegulation3 (Difficulties in impulse control), c. criterion variable: Mental Health Total

DiER1 (F (1, 330) = 15.88), p<0.000) and DiER3 (F (2, 330) = 12.34), p<0.000) significantly predict students' mental health (Table 5).

Table 5 The summary of ANOVA of multivariable regression of MH in terms of ER 1 and ER 3

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression 3072.663		1	3072.663	15.875	$.000^{a}$
	Residual	63679.440	329	193.555		
	Total	66752.103	330			
2	Regression	4672.866	2	2336.433	12.345	$.000^{b}$
	Residual	62079.237	328	189.266		
	Total	66752.103	330			

a. Predictors: (Constant), EmotionRegulation1 (Non-acceptance of emotional responses), b. Predictors: (Constant), EmotionRegulation3 (Difficulties in impulse control), c. criterion variable: Mental Health Total

 $Table\ 6\ Results\ of\ multivariable\ regression\ analysis\ of\ MH\ in\ terms\ of\ ER\ 5, ER2, and\ ER\ 6$

	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	1	.327ª	.107	.104	13.46281
Г	2	.381 ^b	.145	.140	13.19268
	3	.400°	.160	.152	13.09350

a. Predictors: (Constant), EmotionRegulation5 (Lack of emotional awareness)

b. Predictors: (Constant), EmotionRegulation2 (Difficulties in obtaining purposive behavior)
c. Predictors: (Constant), EmotionRegulation6 (Limit access to emotional regulation strategies)
d. criterion variable: Mental Health Total

The DiER5, DiER2, and DiER6 variables predict or explain mostly 33%, 38%, and 40% of students' the variance of mental health, respectively (Table 6).

DiER5 (F (1, 330) =39.29), p<0.000), DiER2 (F (2, 330) =27.77), p<0.000) and DiER6 (F (3, 330) =20.79), p<0.000) significantly predict students' mental health (Table 7).

Table 7 The summary of ANOVA of multivariable regression of MH in terms of ER 5, ER2, and ER6

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7121.715	1	7121.715	39.293	.000a
	Residual	59630.388	329	181.247		
	Total	66752.103	330			
2	Regression	9664.776	2	4832.388	27.765	.000 ^b
	Residual	57087.327	328	174.047		
	Total	66752.103	330			
3	Regression	10691.277	3	3563.759	20.787	.000°
	Residual	56060.826	327	171.440		
	Total	66752.103	330			

a. Predictors: (Constant), EmotionRegulation5 (Lack of emotional awareness)
b. Predictors: (Constant), EmotionRegulation2 (Difficulties in obtaining purposive behavior)
c. Predictors: (Constant), EmotionRegulation6 (Limit access to emotional regulation strategies)

CONCLUSION AND DISCUSSION

Studies argued that external attributions are accompanied by being impulsive, high scores in psychotics and neurotics that have a direct relationship with anti-social personality and conduct disorders [14]. Further studies support this assertion [53].

With regard to studies, some people have difficulties in emotion regulation that ER strategies can help a person moderating his/her regulation. DiER has a significant relationship with rising age, emotional intelligence, teacher-student contacts, emotional well-being, increasing emotional responses, decreasing stress and depression in people with psychological disorders. ER strategies are useful for mental and counseling clinics, psychologists, psychiatrists, physicians, teachers, and other involved experts [15, 20, 44, 46, 51].

The present study indicated that DiER variable has a high contribution in predicting or explaining students' mental health. Similarly, there are some studies supporting this statement [55, 57].

Limitations were the implementation of DiER scale and the use of correlation in results analysis of the recent study. To remove that, researchers must implement other kinds of research designs in different academic grades of different cultural contexts. This study focused on the role of educational factors in predicting mental health. Its more applicable aspects include allotment of instructional material and content shares, group discussion, scientific projects, and so on. The effectiveness of dimensions ER strategies on people' mental health requires more research in future. The courses of ER training can be carried on students in schools. Students must be taught to moderate negative emotions, because these components directly affect on mental health and cause to remedy it.

Our emotion regulation framework may also be useful in specifying how different emotion regulatory mechanisms may give rise to a "single" diagnosis. For example, the woman with depression whose job was taken away may use a few maladaptive emotion regulation strategies to exacerbate her initial upset reaction into a depressed state. In an attempt to not feel upset, she may call in sick to work the next day (situation selection); complain to coworkers rather than directly communicate with her boss (situation modification); ruminate about the situation (attentional deployment); self-elaborate and resist the negative thoughts and emotions related to the situation (cognitive change); and suppress her negative feelings (response modulation). The use of these maladaptive emotion regulation strategies in tandem may not allow the upset feelings to fully arise and dissipate, but rather may contribute to the creation of "dirty emotions" that maintain a depressed mood.

As the previous example makes clear, our proposed framework urgently needs to be fleshed out by research examining emotion regulation in the context of particular disorders in individuals of varying ages and backgrounds.

Such work will enable us to better understand (1) how dysfunctional patterns of emotion regulation arise, (2) the nature and extent of shared versus unique forms of emotion dysregulation in different forms of psychopathology, and (3) how these patterns of emotion dysregulation vary by age, gender, and cultural context.

The Evergreen consultation produced numerous themes regarding research and evaluation in child and youth mental health. Overall, it was noted that research into child and youth mental health has received less attention, development or funding than other areas of health. It was recognized that all aspects of child and adolescent mental health had to be built upon the best available research.

Consultation participants consistently noted that all interventions should apply validated research methods to direct and inform practice. Participants expect governments to establish and enforce research-based standards of care, that child and youth mental health research be a national priority for funding, and that such research and evaluation be conducted in a way that meets Iranian needs and respects Canadian diversity.

In all, nineteen strategic directions were identified for research and evaluation. In sum, support for research in health promotion, prevention, and intervention is essential so that the effectiveness, safety, and cost benefit of such initiatives are clearly established. These evaluation processes should include young people, their families, and their communities where possible and appropriate. Program funding should be tied to completion of outcome evaluation. A national repository of mental health research available to professionals, consultants, care workers, young people, parents/caregivers, and families is advisable. There should be an effort to create cross-jurisdictional, cross-sectoral, and linked databases that capture and maintain pertinent information for research and evaluation purposes, while ensuring accepted privacy standards are met.

The importance of research should be made known to young people and families. There is a need to develop a research infrastructure, including establishing a pool of qualified scientists in order to increase the understanding of mental health issues and how best to address them. Efforts put into building linkages, between health providers and researchers and partnerships between policy makers, service providers, academics, and others are required. There ought also to be a national liaison group to collaborate with international partners. Future research should systematically work to use comparable methods in order to clarify the following: which individuals have; what kinds of emotion regulation difficulties with; which types of emotions; and what interventions are most effective in alleviating these difficulties.

Acknowledgements

The authors thank Mr.Abulfazl Hashemzadeh for assisting in the literature review on which this article is based.

REFERENCES

- [1] American Psychiatric Association, *Diagnostic and statistical manual of mental disorders* (5th ed. text rev.). Washington, DC: Author, **2013.**
- [2] Amstadter A, Anxiety Disorders J, 2008, 22(2), 211–221.
- [3] Barlow DH, Allen LB, Choate ML, Behavior Therapy, 2004, 35(2), 205–230.
- [4] Berenbaum H, Raghavan C, Le HN, Vernon LL, Gomez JJ, Sci Prac, 2003. 10(2), 206-226.
- [5] Botvinick MM et al, *Trends Cogn Sci*, **2004**, 8, 539–546.
- [6] Campbell K, Waters E, O'Meara S, Kelly S, Summerbell C, Cochrane Database of Systematic Reviews, 2002, (2)(2).
- [7] Campbell-Sills L, Barlow DH, Brown TA, Hofmann SG, Behr Res Ther J, 2006, 44(9), 1251–1263.
- [8] Campbell-Sills L, Barlow DH, Incorporating emotion regulation into conceptualizations and treatments of anxiety and mood disorders, New York: Guilford Press, 2007, 542–559.
- [9] Charney DS, Psychobiological mechanisms of resilience and vulnerability, 2004.
- [10] Cicchetti D, Ackerman BP, Izard CE, Development Psychopathology J, 1995, 7, 1–10.
- [11] Davidson RJ, Am. Psychol, 2000, 55, 1196–1214.
- [12] D'Esposito M et al., Brain Res, 2000, 133, 3–11.
- [13] Ekman P, Davidson RJ, The nature of emotion: Fundamental questions. New York, Oxford University Press, 1994
- [14] Fox S, De Koning E, Leicht S, Person Individ Differen J, 2002, 33, 1-9.
- [15] Frenzal AC, Pekrun R, Goetz T, Edu J, 2007, (4), 497-514.

- [16] Frijda NH, Kuipers P, Ter Schure E, Personality Social Psycho J, 1989, 57(2), 212.
- [17] Galvin KM, Cooper PJ, Making connections: Readings in relational communication. Los Angeles: Roxbury, 2006.
- [18] Gard DE, Kring AM, Gard MG, Horan WP, Green MF, Anhedonia in schizophrenia, *Schizophrenia Research*, **2007**, *93*(1–3), 253–260.
- [19] Gilbert P, Andrews B, *Shame: Interpersonal behavior, psychopathology, and culture,* New York: Oxford University Press, **1998**.
- [20] Goetz T, Pekrun R, Hall N, J Abnorm Child Psych, 2006, 23, 597-606.
- [21] Gordy F, Minakary M, Heydary M., *J psych res*, **2006**, 8(3-4): 45-61.
- [22] Gratz KL, Roemer L, *J psychopath beh assess*, **2004**, 26(1), 41 54.
- [23] Gross JJ, Rev Gener Psych, 1998, 2(3), 271–299.
- [24] Gross JJ, Psychophysiol, 2002, 39, 281-291.
- [25] Gross JJ, Emotion regulation, Guilford Press, 2007.
- [26] Gross JJ, John, OP, Personality Social Psycho J, 2003, 85, 348-362.
- [27] Gross JJ, Levenson RW, Abnormal Psycho J, 1997, 106(1), 95–103.
- [28] Gross JJ, Thompson RA, Emotion regulation, New York: Guilford Press, 2007, pp 3–24.
- [29] Hayes, S. C., & Wilson, K. G. (1994). Acceptance and commitment therapy: Altering the verbal support for experiential avoidance. *Behavior Analyst*, 17, 289–303.
- [30] Health Canada, 2002, http://secure.cihi.ca/cihiweb/en/downloads/reports_mental_illness_e.pdf
- [31] Jacobson NS, Martell CR, Dimidjian S, *Psych Sci Prac*, **2001**, 8(3), 255–270.
- [32] John OP, Gross JJ, Personality J, 2004, 72(6), 1301–1334.
- [33] Kashdan TB, Barrios V, Forsyth JP, Steger MF, Beh Res Therapy, 2006, 44(9), 1301–1320.
- [34] Kessler, R. C., Berglund, P., Demler, O., Arch Gener Psych, 2007, 62(6), 593-602.
- [35] Kirby D, Sex Res J, 2002, 39(1), 27-33.
- [36] Kirby, M. J. L., Keon, W. J., Out of the shadows at last: Transforming mental health, mental illness and addiction services in Canada. Ottawa, 2006.
- [37 Kirby, MJL, Keon, WJ, Out of the shadows at last: Transforming mental health, mental illness and addiction services in Canada, Ottawa, 2009.
- [38] Kleinke, L. S., Coping with life challenges (2nd. ed). New York: Brooks/ Cole Publishing Company, 1998.
- [39] Kring, A. M., Werner, K. H., Emotion regulation and psychopathology, UK: Psychology Press, **2004**, pp. 359–385.
- [40] Lieberman MD, Gaunt R, Gilbert DT, Trope Y, Reflexion and reflection, New York, Academic Press, 2002, 34, 199-249.
- [41] Mackey, A., Power, pessimism & prevention, 4, 2008.
- [42] Mennin, D., Farach, F, Clinical Psychology: Science and Practice, 2007, 14(4), 329-352.
- [43] Mennin, D. S., Heimberg, R. G., Turk, C. L., Fresco, D. M., Clinical Psychology: Science and Practice, 2002, 9(1), 85–90.
- [44] Meyer DK, Turner JC, Edu Psycho Rev J, 2006, 18, 377-390.
- [45] National Drug Research Institute, *The Prevention of substance use, risk and harm in Australia*. Canberra, Australia: Commonwealth Department of Health and Aging, **2002**.
- [46] Ochsner KN, Gross JJ., Thinking makes it so, Guilford Press, 2004, pp. 229–255.
- [47] Ochsner KN, Gross JJ, Trend Cognit Sci, 2005, 9(5), 242–249.
- [48] Phares EJ, Form therapy to research: A patient's legacy, Philadelphia, Temple University Press, 1993.
- [49] Roemer L, Orsillo SM, An acceptance-based behavior therapy for generalized anxiety disorder, New York: Springer, **2005**, pp. 213–240.
- [50] Santor D, Short K, Ferguson B, *Taking mental health to school*, Ottawa, The Provincial Centre of Excellence for Child and Youth Mental Health at CHEO, **2009**.
- [51] Schutz PA, DeCuir JT, Educ Psych, 2002, 37 (2), 125-134.
- [52] Shaver PR, Mikulincer M, Adult attachment strategies and the regulation of emotion, New York: Guilford Press, **2007**, pp. 446–465.
- [53] Storms, M. D., McCaul, KD, Attribution processes and emotional exacerbation of dysfunctional behavior, New York: Erlbaum, 1976.
- [54] Sutton PW, Love JG, Bell J, Christie E, Mayrhofer A, The emotional well-being of young people, Aberdeen: Robert Gordon University, **2005**.
- [55] Tucker AM, Feuerstein R, Mende-Siedlecki P, Double Dissociation, 2012.
- [56] Waddell C, Shepherd C, Prevalence of mental disorders in children and youth, 2002.

[57] Zhonghuan L, Tiefeng G, Limin W, Huade School of Applied Technology, P.R.China. 2008, 30, 345-363.