

# UNIVERSITY OF TWENTE.

Faculty of Behavioural, Management & Social Sciences

The Relationship between Emotional Awareness and Experiential Avoidance among Germans: The Role of Educational Level

> Michael Freimann S1559427 B.Sc. Thesis June 2017

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Supervisors: Dr. L. E. van Zyl Dr. M. Schotanus-Dijstra

Faculty of Behavioural, Management & Social Sciences University of Twente 7500 AE Enschede The Netherlands

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## Abstract

Everyday millions of people engage in a wide range of avoiding techniques ranging from mild versions such as procrastination to ones that can severely intervene with a healthy and normal lifestyle like for instance drug use, alcohol abuse or risky sexual behaviour. This behaviour has been conceptualized as Experiential Avoidance. The underlying mechanisms of avoidance have, however, to this day not excessively been explored. This current study tries to establish whether there is a relationship between the concepts of Emotional Awareness and Experiential Avoidance and furthermore accounts for a moderating variable of Educational Level. An explorative crosssectional quantitative electronic-survey based research approach, utilizing a German sample of 120 participants, could support the hypothesis that there is indeed a positive correlation between Emotional Awareness and Experiential avoidance but could not find a significant moderating effect of Educational Level on the relationship of these two constructs. An implication of this research is that it sheds light into the underlying mechanisms of Experiential Avoidance and allows a better understanding of the reasons behind avoidance.

*Keywords:* Experiential Avoidance, Emotional Awareness, Educational Level, German, Emotional Regulation, Avoidance

# Introduction

The concept of Experiential Avoidance (also called Psychological Inflexibility) forms a crucial component in understanding why people engage in risky behaviours throughout the world. These are ranging from mild avoiding methods that a lot of people engage in like procrastination or avoiding conflict to severe ones such as drug use and alcohol abuse (Hayes, et al., 1996). To this day there is still a lot to discover about the mechanisms of Experiential Avoidance as to why people engage in unhealthy efforts to escape and avoid unpleasant emotions (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). This research is aimed to address this subject by adding to the body of knowledge concerning Experiential Avoidance and to explore possible mechanisms that play a role in this concept. A recent study by Duarte and Pinto-Gouveia (2017) suggests that there may be a relationship between one's emotional regulation abilities and the extent to which a person engages in Experiential Avoidance. This study provides a potential indication towards the relationship of Emotional Awareness and Experiential Avoidance as the terminology of emotional regulation abilities is frequently used as an umbrella term for a set of different emotion-based conceptualizations such as impulse control difficulties, lack of emotional awareness and limited access to emotion regulation strategies (Duarte & Pinto-Gouveia, 2017). Prior studies have also suggested that the concept of Educational Level plays a crucial role by allowing an individual to engage more frequently in healthier coping techniques (Cano, Mayo, & Ventimiglia, 2006) and a higher Educational Level has also been link with higher emotional clarity (Novick-Kline, Turk, Mennin, Hoyt, & Gallagher, 2005).

Although some researchers have focused on studying whether Emotional Awareness or Experiential Avoidance as separate constructs, there is no research on the possible relationship between the two. Furthermore, there is a lack of studies exploring Educational Level in regards of Emotional Awareness and Experiential Avoidance.

The focus of this research is to bring light into the relationship between Emotional Awareness and Experiential Avoidance and to further explore whether a person's level of education has an influence on this relationship. The two following questions therefore arose:

- (1) "What is the relationship between Emotional Awareness and Experiential Avoidance?"
- (2) "What is the role of education on Emotional Awareness and Experiential Avoidance?"

# Literature Review

#### **Experiential** Avoidance

The concept of Experiential Avoidance has been defined by Hayes and colleagues (1999) as the attempt to avoid feelings, thoughts, memories, physical sensations and other internal experiences even when doing so creates harm in the long term. The concept of Experiential Avoidance has been broadly accepted by a variety of psychological disciplines (Hayes, Wilson, Gifford, Follette, Strosahl, 1996). It plays a critical role in the development and maintenance of psychopathology. According to Hayes and colleagues (1996) Experiential Avoidance includes the use of avoidance and escape techniques in order to bypass negative emotional states and emotionally difficult situations. Typical avoidance strategies are drug use, alcohol abuse or highrisk sexual behaviour (Chawla & Ostafin, 2007). Eustis and colleagues (2016) furthermore found a link between Experiential Avoidance and a lower quality of life, as avoidance leads a person to use a lot of energy and effort in order to avoid situations that may be uncomfortable or stressful. This in turn leads to a vicious circle leaving a person powerless and exhausted of the process of avoidance. The process of avoiding unpleasant thoughts or experiences in general leads to the establishment of even bigger concepts of thoughts or emotional states being avoided itself (Mellick, Vanwoerden, & Sharp, 2017). In particular, the behaviour of avoidance can commence a 'chain of avoidance'. Meaning that during the process of avoiding more

and more associations and links are made between seemingly irrelevant concepts and cues of danger. A person might, for instance, belief that eating a certain food, such as an apple in the morning causes him to experience psychosomatic symptoms over the day. The fruit therefore became linked with a cue of danger, while it may have no connection to the issue in the first place (Mellick et al., 2017). This leads the person to get lost in a spiral of rumination and negativity as the person is occupied with avoidance to such a degree that there is no time or energy left at the end of the day to invest in positive things (Moulds, Kandris, Starr, & Wong, 2007).

All the before mentioned factors are working factors for a higher risk of an individual suffering from depression. According to Mellick and colleagues (2017) there is also a link between Experiential Avoidance and Major Depressive Disorder among females (MDD), providing support for a correlation between the use of Experiential Avoidance and depression. The process of avoiding may however, work well in the short-term, which may be one of the main reasons for people to engage in Experiential Avoidance in the first place (Kashdan, Barrios, Forsyth, & Steger, 2006). Drug use is a classic example for this, as people using substances on a regular basis often seek relief from negative thoughts or emotional suffering (Kashdan et al., 2006). In short-term this might be successful, but in long term it can cause substantial damage. This typical pattern of Experiential Avoidance is associated with fast and effective relief from negative emotions and thoughts in the short term but leads to severe problems in the long term (Hayes et al., 1996) such as depression (Mellick et al., 2017), a low quality of life (Moulds et al., 2007) and anxiety (Kashdan et al., 2006).

#### **Emotional** Awareness

The concept of Emotional Awareness can be defined as successfully decoding and acknowledging feelings in ourselves and others. The main accepted cognitivedevelopmental theory of Emotional Awareness is the one of Piaget, Werner and Kaplan (1963). They state that Emotional Awareness is a type of cognitive processing that functions according to five stages of structural transformation, namely (1) bodily sensations, (2) the body in action, (3) individual feeling, (4) blends of feelings and (5) blends of blends of feelings. An effect study by Lane and Schwartz (1987) showed that people who score higher on questionnaires of Emotional Awareness show to be more aware of their bodily sensations and incoming emotional states. They can correctly identify how they feel and why they feel the way they do. Furthermore, they also tend to be more aware of what situations lead them to experience a negative state of mind because certain situations evoke negative emotions, memories or make them re-experience negative states due to memory (Herbert, Herbert & Pollatos, 2011). The concept of Emotional Awareness furthermore contains a component of language to it, which becomes crucial when considering that people need to be able to label their feelings with words in order to fully grasp the understanding of certain emotions (Lane & Schwartz, 1987). Some people tend to not fully experience their emotional states and not even being able to differ between closely related states because they lack the literacy to label their emotional states appropriately (Friedberg & Quick, 2007). Studies show that people who are more educated also feature a bigger repertoire of vocabulary in order to label the emotions they experience correctly (Slavin & Chambers, 2017).

#### **Educational Level**

In this study Educational Level has been conceptualized as the highest educational qualification that one has obtained (Secondary Education, Higher Secondary Education, Bachelor, Master and Doctor). As mentioned above the relationship between health and Educational Level has been broadly established (Ross & Chialing, 1995). It has been found that a higher Educational Level leads to higher levels of health and several aspects relating to the construct of health such as healthy coping (Cano et al., 2006) and high physical health (Ross & Chia-ling, 1995). High levels of Emotional Awareness have been linked with similar predictions such as healthy coping mechanisms (Catherine & Chia-Ling, 1995), an intertwining effect of living in the present moment as well as healthy coping leading to a better health (Novick-Kline et al., 2005). A low Educational Level has in return, as mentioned above, been linked with drug use, smoking and alcohol abuse as well as unhealthy-coping (Ross & Chialing, 1995). Furthermore, higher rates of infectious diseases were found to correlate with one's Educational Level (Feldman, Makuc, Kleinman & Cornoni-Huntley, 1989), as well as chronic pain issues (Guralnik, Land, Fillenbaum & Branch, 1993) and self-reported poor health (Gutzwiller, LaVecchia, Levi, Negri & Wietlisbach, 1989). Similar results have been found by (Ross & Chia-ling, 1995) by establishing a correlation between high levels of Experiential Avoidance and self-reported poor health. It is therefore thought that the variable of Educational Level might have an

effect on the relationship between Emotional Awareness and Experiential Avoidance. Those assumptions are summarized and illustrated in Figure 1 comprehending the relationships into a conceptual model.

# Study Hypotheses

To answer the main questions mentioned earlier in this paper, namely "What is the relationship between Emotional Awareness and Experiential Avoidance?" and "What is the role of education on Emotional Awareness and Experiential Avoidance?" the following hypotheses were formulated:

- (1) Emotional Awareness correlates positively with Experiential Avoidance.
- (2) Emotional Awareness predicts Experiential Avoidance.
- (3) Educational Level has a moderating effect on the relationship between Emotional Awareness and Experiential Avoidance.



*Figure 1*: Conceptual model of Emotional Awareness, Experiential Avoidance and Educational Level.

# Methods

#### **Research** Approach

An exploratory cross-sectional survey-based research design was employed to gather information on Educational Level, Emotional Awareness and Experiential Avoidance in a sample of 120 German participants.

#### **Participants**

A total amount of 120 participants were recruited using convenience sampling by sharing a link to the questionnaire via social media sites and by approaching participants personally. Of the sample most participants were male and indicated that the highest educational qualification obtained was higher secondary education. The age ranged from 18 to 78 years. The descriptives are further illustrated in detail in Table 1.

#### Table 1

Item	Category	Frequency	%		
Gender	Male	43	77		
	Female	35,8	64,2		
Age	18-24	70	58,3		
	25-30	14	11,7		
	31-40	12	10		
	41-50	17	14,2		
	51-60	6	5		
	61-70	0	0		
	71-80	1	0,8		
Educational Level	ational Level Secondary Education		8,3		
	Higher Secondary Education	74	61,7		
	Bachelor	18	15		
	Master	18	15		

Demographics Table of Gender, Age and Educational Level

#### Measuring instruments

Data was gathered using three measuring instruments:

A *self-developed biographic questionnaire* was used to determine individual's gender, age, nationality and level of education.

Two subscales of the *Difficulties in Emotion Regulation scale* (DERS; Graz & Roemer, 2004) were used to assess the Emotional Awareness ('Emotional Awareness' and 'Emotional Clarity') of participants. These two subscales measure Emotional Awareness through a series of 11 self-report items on a five-point Likert scale ranging from 1 ('Almost Never') to 5 ('Almost Always'). An example of an item of the subscale 'Emotional Awareness' is 'I am attentive to my feelings' and one of the subscale 'Emotional Clarity' is 'I have no idea how I am feeling'. The DERS has proven to be a reliable measure in various contexts with Cronbach's alphas ranging from 0,82 to 0,83. (Gratz & Roemer, 2004)

The Acceptance and Action Questionnaire (AAQ-II; Bond & Bunce, 2003) was used in order to assess Experiential Avoidance of the participants. The 10 self-report items were measured through a seven-point Likert scale ranging from 1 ('Never True') to 7 ('Always True'). An example of the AAQ-II is 'I am in control of my life' and 'It's OK if I remember something unpleasant'. The scale proves to be reliable with a Cronbach's Alpha value of 0,83 (Bond, Hayes, Baer, Carpenter, Guenole, Orcutt, & Zettle, 2011).

#### **Research Procedure**

All questionnaires were programmed into Qualtrics, meaning that the complete questionnaire contained the standard questions about demographics and the Educational Level of the participants, the AAQ-II and the DERS. Ethical confirmation was requested and approved by the ethics committee of the University of Twente before recruitment of participants. The participants were approached via convenience sampling. Once the participants have been contacted a link to the questionnaire was send. No incentives were given as reward for participation. The Questionnaire also contained an informed consent form at the very beginning of the survey as well as a short debriefing and a thank you note at the end. The data was then stored and downloaded in SPSS format directly from the Qualtrics page. Once imported into SPSS the dataset was cleaned and prepared for analysis by excluding all cases that were not of German nationality and those that did not answer all the questions that have been provided. Furthermore, the results have been reversed by following the instructions given in the manuals of the DERS and AAQ-II.

#### Statistical Analysis

The data was processed and analysed using SPSS v22 (IBM 2015). Descriptive statistics have been computed (Mean, Standard Deviation and Cronbach's Alphas). Skewness, Kurtosis were retrieved in order to test for normality. Next the Pearson's correlation coefficients were obtained to determine the relationships between the variables. The effect size ranged from 0,3 (medium) to 0,5 (high) whilst statistical significance was defined to p < 0,05. Next a regression analysis was conducted in order to explore the effect of Emotional Awareness on Experiential Avoidance followed by a moderation analysis with gradual multiple regressions. For this analysis variables were centred to account for high multicollinearity with the interaction term. Thereafter two Models have been compared using regression analysis.

# Results

This section presents the results found in this research. First the descriptives of the results will be presented, secondly the correlation analysis, thirdly the regression analysis and at the end the moderation analysis.

#### Descriptive Statistics, Normality, Reliability and Correlations

The analysis of normality, namely the Skewness and Kurtosis of the sum scores of the DERS and the AAQ-II as well as the Educational Level were computed and showed that the data is fairly normal distributed amongst the participants as shown in Table 2. The reliability of the DERS ( $\alpha = 0.85$ ) and the AAQ-II ( $\alpha = 0.83$ ) were computed and showed to be in the expected range. Furthermore, Table 2 shows the results of the correlation analysis between the two concepts of Emotional Awareness and Experiential Avoidance. The results indicate a positive correlation between the two variables (r = 0.48; p = 0.00). Overall, there was a moderate, positive correlation between Emotional Awareness and Experiential Avoidance.

#### Table 2

Descriptive Statistics, Alpha Values, Skewness, Kurtosis and Correlation Analysis

	μ	σ	Skewness	Kurtosis	α	Education	DERS	AAQ-II
Education	4,37	0,84	0,78	-0,10		1		
DERS	26,23	7,14	0,45	-0,09	0,85	-0,15	1	
AAQ-II	32,54	9,46	0,75	0,98	0,83	-0,05	0,48	1

#### **Regression Analysis**

A single linear regression was computed to predict Experiential Avoidance based on Emotional Awareness. The sum score of the AAQ-II was used as the dependent variable and the sum score of the DERS as the independent variable. A significant regression equation of moderate strength was found, as illustrated in Table 3, with ( $F_{(1,105)} = 30,73$ , p < 0,00,  $\beta = 0,48$ ) and an  $R^2$  of 0,23 meaning that 23% of Experiential Avoidance can be accounted for by Emotional Awareness.

### Table 3

		Unstandardized		Standardized			F	R	<i>R</i> <sup>2</sup>
Model		Coefficients		Coefficients	t	р			
		В	SE	Beta					
1	(Constant)	15,89	3,11		5,11	0,00	30,73	0,48	0,23
	Emotional	0,64	0,11	0,48	5,55	0,00			
	Awareness								

Regression Analysis with Experiential Avoidance as dependent and Emotional Awareness as independent variable

#### Moderation Analysis

A moderation Analysis was executed in order to explore whether Educational Level interacts as a moderating variable on the relationship between Emotional Awareness (independent variable) and Experiential Avoidance (dependent variable). Before the computation all variable have been centred in order to accommodate for potential high multicollinearity. A regression analysis was computed with Emotional Awareness and Educational Level as separate constructs (Model 1). Model 1 was found to explain a significant variance in Experiential Avoidance ( $R^2 = 0.23$ ,  $F_{(2,104)} = 15.24$ , p < 0.00). Further, an interaction term was computed between Emotional Awareness and Educational Level (Model 2). Model 2 was also found to explain a significant variance in Experiential Avoidance ( $R^2 = 0.23$ ,  $F_{(3,103)} = 10.22$ , p < 0.00).

Model 2, respectively the interaction term between Emotional Awareness and Educational Level, showed to not account for significantly more variance than Model 1,  $R^2$  Change = 0,00, p = 0,55. Thus, Educational Level does not show to be a moderating variable between Emotional Awareness and Experiential Avoidance. The interaction effect is illustrated in Figure 2.



*Figure 2:* Moderation plot of Model 2 (*N*=120)

## Discussion

#### Main findings and prior literature

The purpose of this study was to investigate the relation between Emotional Awareness and Experiential Avoidance and to explore whether the Educational Level moderates the relationship between the two constructs of Emotional Awareness and Experiential Avoidance. This study provides support for the first and second hypothesis that the constructs of Emotional Awareness and Experiential Avoidance do correlate and that a high score on Emotional Awareness indeed tends to predict a high score on Emotional Avoidance and vice versa. The third hypothesis, namely that Educational Level will have influence on the relationship between Emotional Awareness and Experiential Avoidance could not be supported.

The findings in respect of the first hypothesis can be related back to the study of Duarte and Pinto-Gouveia (2017) who found that there is a negative correlation between emotion regulation abilities and Experiential Avoidance. The results of the current study are also in line with the results presented by Doolan and colleagues (2017) who found that there is a link between Emotional Awareness and Post-Traumatic Stress Disorder (PTSD) symptoms. It was found that Emotion Regulation difficulties could predict higher levels of severity of PTSD symptoms in refugees especially on the subscale of Emotional Awareness (Doolan, Bryant, Liddell, & Nickerson, 2017) also using the DERS. PTSD has been associated with the use of several different avoiding techniques ranging from suppression to drug use (Briscione, Michopoulos, Jovanovic, & Norrholm, 2017). It was found by other studies that individuals who score high on Emotional Awareness tend to be more aware of what situations lead them to experience a negative state of mind (Herbert, Herbert & Pollatos, 2011). The findings discussed in this paper could thus be linked with the findings of the study by Herbert and colleagues (2011) as individuals scoring high on Emotional Awareness may score higher on avoidance because they are more aware of what causes them a negative state of mind and therefore, are more inclined on avoiding this exact cause or trigger in return.

#### Strengths and Limitations

A possible explanation for the non-significant result of the third hypothesis could be that Educational Level is a too undefined construct to use in this context, as Educational Level only states what the highest educational status is, that one has graduated in. A narrower construct such as intelligence or literacy would provide a more sophisticated measure. Another reason could be the distribution of participants in respect of the construct of Educational Level. A great amount of participants indicated secondary higher education as the highest educational graduation completed, whereas a noticeably smaller amount indicated to have completed a master's or bachelor's degree. A more evenly distributed sample may have changed the results to some extent. A third explanation could be that this study only focused on Educational Level in terms of scholastic education. In Germany, however, it is also possible to obtain education in other ways than the solely traditional manners (School, University, Academy) examples of this would be the German "Ausbildung" (Apprenticeship) or "Fortbildung" (Trainings) where a whole different set of skills may be at work. The fourth and last consideration could be that there is an overall difference of the quality of education. The main sources of prior research consider participants from the United States of America while this study analysed a purely German sample. It could be that an individual considered 'lower educated' in Germany is not comparable to an individual with lower education from the US (Bell, & Freeman, (2000).

Despite the limitations of this study this paper provides a scientific investigation into the relationship between Emotional Awareness and Experiential Avoidance. As a significant link between these two constructs could be established, this research provides added value to the knowledge of avoiding mechanisms and unhealthy coping techniques as Emotional Awareness showed to play a role in this concept. It could be shown that not only the discussed topic of emotional regulation abilities but more precisely that of Emotional Awareness has influence on the level that a person engages in avoidance techniques. This study therefore provides a basis for future research to investigate this relationship into more detail.

#### Implications for practice

In a broader sense a possible conclusion could be that an individual that is highly aware of his/her emotions avoids negative experiences more often or to a greater extent than a person that is not. This could be due to the fact that a person that knows fairly well how he/she is feeling can also more precisely identify what possible stressors or negative emotions there are in one's personal life (Blackledge, & Hayes, 2001). According to Boden and Thompson (2015) the key mechanisms of Emotional Awareness are attentional and interpretative processes, through which ongoing monitoring, differentiating and analysing of emotion are processed. When considering this aspect it becomes clear that the role of attention and interpretation plays a crucial role in emotional aware individuals. They are more attentive to their feelings and surroundings as well as they constantly interpret the incoming emotional states. This leads to an ongoing process of self-monitoring and analysis of emotional input. In particular, this means that an individual that is constantly receiving and interpreting, negative input tends to correctly identify where the emotion is coming from and under what circumstances they are received. These individuals may therefore, be more inclined on avoiding these identified triggers in respect to Experiential Avoidance. Avoiding individuals then gradually become lost in a spiral of rumination and depression due to the avoidance of the negative emotional states, situations and so forth. It is therefore important to teach people the value of these negative experiences and emotions as this may prevent them from being captured in rumination.

The established relationship between Emotional Awareness and Experiential Avoidance allows a deeper understanding of the construct of Emotional Awareness as to the extent that this construct can contribute to the rectification of unhealthy coping mechanisms and avoiding techniques. By providing insight into the relationship of these two constructs it can be assumed that it is of added value to know how these two constructs relate to one another, as Emotional Awareness is a crucial construct for many healthy forms of coping (Tugade, Fredrickson, & Barrett, 2004) and a crucial component of living in the present moment (Novick-Kline et al., 2005). On the other hand Experiential Avoidance was associated in previous studies with negative coping mechanisms such as drug use, risk sexual behaviour and alcohol abuse (Chawla & Ostafin, 2007) as well as Major Depressive Disorder (Mellick et al., 2017). Due to the

findings of this study it can be concluded that participants with a high score on Emotional Awareness indicated a high score on Experiential Avoidance. The mentioned studies illustrate the fact that with the gained knowledge from this paper it could be possible to view the importance of Emotional Awareness in avoiding techniques and in a therapeutic setting. After further research into this topic it could become possible to design intervention techniques to allow emotional aware individuals to handle their emotional states more healthy and appropriately.

#### Future Research

A limitation of this study is the undifferentiated assumptions made about the variable of Educational Level. For future research it is therefore, recommended to focus on a more clearly defined aspect that is related to education such as i.e. intelligence or language skills.

The sample used in order to measure the differences among Educational Levels should also be more representative with equal amounts of participants assigned to each group. The fact that this research was only based on a German sample is not mentionable as a limitation as such but it would, however, be of added value to execute this study in other cultural contexts.

It could also be of added value for future researchers to investigate the topic of Experiential Avoidance in order to identify what the exact cognitive processes are that lead emotional aware individuals to avoid more or what influencing variables there are that increase a person's level of Emotional Awareness in the first place. To illustrate this point it has to be said that this paper can only make inferences about the implications of this study based on the result that high levels of Emotional Awareness correlate with high levels of Experiential Avoidance, It would therefore be important to investigate what the exact underlying cognitive reasons are that make a person emotional aware.

## **Reference** List

- Bell, L. & Freeman, R. (2000). The Incentive for Working Hard: Explaining Hours Worked Differences in the U.S. and Germany. *Labour Economics*, 8 (2), 181-202 doi:10.3386/w8051
- Blackledge, J. T. & Hayes, S. C. (2001). Emotion regulation in acceptance and commitment therapy. *Journal of Clinical Psychology*, *57*(2), 243-255. Doi: 10.1002/1097-4679(200102)57:2<243: aid-jclp9>3.3.co; 2-o
- Bond, F. W., & Bunce, D. (2003). The role of acceptance and job control in mental health, job satisfaction, and work performance. *Journal of Applied Psychology*, 88, 1057-1067
- Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K.,
  Zettle, R. D. (2011). Preliminary Psychometric Properties of the Acceptance and Action Questionnaire–II: A Revised Measure of Psychological Inflexibility and Experiential Avoidance. *Behavior Therapy*, 42(4), 676-688. doi:10.1016/j.beth.2011.03.007
- Briscione, M., Michopoulos, V., Jovanovic, T., & Norrholm, S. (2017).
  Neuroendocrine Underpinnings of Increased Risk for Posttraumatic Stress
  Disorder in Women. *Anxiety Vitamins and Hormones*, *103* 53-83.
  doi:10.1016/bs.vh.2016.08.003
- Cano, A., Mayo, A., & Ventimiglia, M. (2006). Coping, Pain Severity, Interference, and Disability: The Potential Mediating and Moderating Roles of Race and Education. *The Journal of Pain*, 7(7), 459-468. doi:10.1016/j.jpain.2006.01.445

- Chawla, N., & Ostafin, B. (2007). Experiential avoidance as a functional dimensional approach to psychopathology: An empirical review. *Journal of Clinical Psychology*, 63(9), 871-890. doi:10.1002/jclp.20400
- Catherine, E., & Chia-Ling, W. (1995). The Links Between Education and Health. *American Sociological Review*, 60(5), 719-745.
- Doolan, E. L., Bryant, R. A., Liddell, B. J., & Nickerson, A. (2017). The conceptualization of emotion regulation difficulties, and its association with posttraumatic stress symptoms in traumatized refugees. *Journal of Anxiety Disorders, 50*, 7-14. doi:10.1016/j.janxdis.2017.04.005
- Duarte, J., & Pinto-Gouveia, J. (2017). Correlates of psychological inflexibility mediate the relation between alexithymic traits and positive emotions. *Journal of Contextual Behavioral Science*, *6*(1), 96-103. doi:10.1016/j.jcbs.2016.12.002
- Eustis, E. H., Hayes-Skelton, S. A., Roemer, L., & Orsillo, S. M. (2016). Reductions In experiential avoidance as a mediator of change in symptom outcome and quality of life in acceptance-based behavior therapy and applied relaxation for generalized anxiety disorder. *Behaviour Research and Therapy*, 87, 188-195. doi:10.1016/j.brat.2016.09.012
- Feldman, J. J., Makuc, D. M., Kleinman, M. J, & Cornoni-Huntley, J. (1989). National Trends in Educational Differentials in Mortality. *American Journal of Epidemiology 129*(3), 919-33.
- Friedberg, F., & Quick, J. (2007). Alexithymia in Chronic Fatigue Syndrome: Associations With Momentary, Recall, and Retrospective Measures of Somatic Complaints and Emotions. *Psychosomatic Medicine*, 69(1), 54-60. doi:10.1097/psy.0b013e31802b873e

- Gratz, K.L., & Roemer, E. (2004). Multidimensional Assessment of Emotion
  Regulation and Dysregulation: Development, Factor Structure, and Initial
  Validation of the Difficulties in Emotion Regulation Scale. *Journal of Psychopathology and Behavioral Assessment*, 26(1), pp. 41-54.
- Guralnik, J. M., Land, K. C., Fillenbaum, G. G., & Branch, L. G. (1993). Educational Status and Active Life Expectancy among Older Blacks and Whites. *New England Journal of Medicine*, 329(24), 110-16.
- Gutzwiller, F., LaVecchia, C., Levi, F., Negri, E., & Wietlisbach, V. (1989).
  Education, Disease Prevalence and Health Service Utilization in the Swiss
  National Health Survey. *Preventive Medicine 18*(14), 452-59.
- Hayes, S. C., Strosahl, K. D., Wilson, K. G. (1999). Acceptance and Commitment Therapy: An Experiential Approach to Behavior Change. New York: Guilford Press.
- Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., Strosahl, K. (1996).
  "Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment". *Journal of Consulting and Clinical Psychology*. 64 (6): 1152–68. Doi:10.1037/0022-006X.64.6.1152
- Kashdan, T. B., Barrios, V., Forsyth, J. P., & Steger, M. F. (2006). Experiential avoidance as a generalized psychological vulnerability: Comparisons with coping and emotion regulation strategies. *Behaviour Research and Therapy*, 44(9), 1301-1320. doi:10.1016/j.brat.2005.10.003
- Lane, R. D., Schwartz, G. E. (1987). Levels of emotional awareness: a cognitive developmental theory and its application to psychopathology. *American Journal* of *Psychiatry*, 144(2), 133-143. doi:10.1176/ajp.144.2.133

- Mellick, W., Vanwoerden, S., & Sharp, C. (2017). Experiential avoidance in the vulnerability to depression among adolescent females. *Journal of Affective Disorders, 208,* 497-502. doi:10.1016/j.jad.2016.10.034
- Moulds, M. L., Kandris, E., Starr, S., & Wong, A. C. (2007). The relationship
  Between rumination, avoidance and depression in a non-clinical sample. *Behaviour Research and Therapy*, 45(2), 251-261.
  doi:10.1016/j.brat.2006.03.003
- Novick-Kline, P., Turk, C. L., Mennin, D. S., Hoyt, E. A., & Gallagher, C. L. (2005). Level of emotional awareness as a differentiating variable between individuals with and without generalized anxiety disorder. *Journal of Anxiety Disorders*, 19(5), 557-572. doi:10.1016/j.janxdis.2004.06.001
- Slavin, R. E., & Chambers, B. (2017). Evidence-Based Reform: Enhancing Language And Literacy In Early Childhood Education. *Early Child Development and Care, 187*(3-4), 778-784. Doi:10.1080/03004430.2016.2111121
- Tugade, M. M., Fredrickson, B. L., & Barrett, L. F. (2004). Psychological Resilience and Positive Emotional Granularity: Examining the Benefits of Positive Emotions on Coping and Health. *Journal of Personality*, 72(6), 1161-1190. doi:10.1111/j.1467-6494.2004.00294.x