AGE AND GENDER DIFFERENCES IN AFFECT REGULATION STRATEGIES

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The purpose of study was to examine gender and age differences in average use of affect regulation strategies in a representative sample of Croatian citizens. There were 891 subjects divided in four age groups: young, middle-age, aged and older adults. The affect regulation strategies were described by seven behavioral and cognitive strategies that people use to regulate their negative feelings in everyday life. For analyses of gender and age differences in use of affect regulation strategies MANOVA was performed with gender and age groups as independent variables and affect regulations strategies as dependent variables. Significant multivariate main effects for both variables were found. Females used more venting strategies than males, which could be partly explained by the social component involved in that group of regulation strategies. Females appeared more likely to engage in rumination strategies than males, which is in accord with findings in the depression and rumination literature. Results also showed significant decline in the use of particular strategies by age. There was only one significant interaction between gender and age. Young, middle and aged females used significantly more venting/expressing than males, while for old age females and males the use of this strategy did not differ.

Keywords: affect regulation, positive affects, negative affects, age, gender

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INTRODUCTION

In everyday life people take actions to influence their mood or affective states, either to maintain or to change it. Some of the actions are intended to increase positive affect and some to decrease negative affect (Larsen & Prizmic, 2004).

One of the first classifications of the mood or affect regulation strategies in the literature was found in Ripperer’s (1977) research that generated a list of behaviors and cognitive strategies designed to relieve negative emotions. It was followed by Morris and Reilly (1987) classification of strategies in four broader categories such as management of the mood, modification of the meaning of the problem, problem-directed action and affiliation. Later Thayer et al. (1994) defined six categories of mood regulation based on self-reported frequency and their effectiveness. Parkison and Totterdell (1999) identified two main distinctive clusters of strategies: the first one was group of cognitive versus behavioral strategies while the second one was engagement versus diversionary strategies. Recently, Gross and colleagues described in detail their choice of important strategies in regulating the affect: reappraisal, i.e. reinterpreting the meaning of emotionally evocative events, and suppression, i.e. inhibiting the outward signs of emotional feelings (Gross, 1999; John & Gross, 2004).

Among those attempts to classify the affect regulation strategies one resulted as a list of a wide range of strategies, i.e. Measure of Affect Regulation Styles (MARS; Larsen & Prizmic, 2004; Prizmic & Larsen, 2006). The Measure of Affect Regulation Styles consists of seven scales, i.e. active distraction, cognitive engagement, behavioral engagement, venting and expressing affect, passive distraction and acceptance, rumination and withdrawal and waiting, covering the behaviors and strategies which most appeared in affect regulation. It relies on a wide variety of regulation strategies rather than on a few specific behaviors, and as a measure it could be used in trait or state assessment or in measuring positive or negative affect regulation. We used the questionnaire and its scales as rationale in defining the affect regulation strategies in this research.

There are a number of individual differences that play a role in affect regulation; the most important and obvious one is gender (Thayer et al., 1994; Nolen-Hoeksema et al., 1999). Gender differences in affect, with women reporting more negative affect than men, are usually explained by findings that women ruminate more in response to depressive mood and thus intensify it (Nolen-Hoeksema et al., 1999). Also, in one study authors explained the findings that young women report a higher degree of sadness and anxiety partly by ruminating more than other age groups (Thomsen et al., 2005).
Concerning age differences, the literature suggests that elderly people usually score lower on negative affect than young people but the possible cause for such findings is still unexplained (Gross et al., 1997; Thomsen et al., 2005). One of the theories attempting to explain age differences in negative affect is Carstensen’s socioemotional theory (Carstensen et al., 1999; Carstensen et al., 2003). Authors pointed out that perceiving limited time, which older people are more aware of than younger, leads to motivational change and increase attention to emotionally meaningful goals. Thus, it was suggested that the elderly have more efficient emotion regulation than younger people as they learn to maximize positive and minimize negative emotions.

The present study was aimed at investigating the general use and distribution of different regulation strategies in the everyday life of Croatian citizens. We were also interested in which of the affective strategies are used more within each gender and also within different age groups. Finally, we examined gender and age differences in the average use of regulation strategies. Since it was conducted on a large, representative sample of Croatian citizens, it represents a unique opportunity to study affect regulation strategies at a national level.

**METHOD**

**Subjects**

The study was a part of a public opinion survey conducted in July 2005 in Croatia. Subjects were a representative sample of Croatian citizens, randomly selected and stratified by age and gender. The total number of contacted respondents was 1307, from 102 different sample points around the country. However, 31% of them refused participation which left a total of N = 900 research participants in our sample. Since there were 9 missing data in age category, further analyses were done and results are presented on a total of N = 891 subjects.

There were 483 women and 408 men. For the purpose of analyzing the age differences, the sample was divided into four age groups: young adults 18 to 29 years old (M = 24.0, SD = 3.13), middle aged group 30 to 44 years old (M = 36.8, SD = 4.46), aged adults 45 to 59 years old (M = 51.3, SD = 4.25) and older adults 60 to 92 years old (M = 69.5, SD = 6.85).

**Procedure and Measures**

The survey was conducted by in-person interviews in the respondent’s home. The subjects were assured that responses are anonymous and that their name will not be included in the interview. The survey was focused on public opinions with
additional part of questions covering different aspects of people’s life and behaviors. Also, respondents provided general demographic information.

Affect regulation strategies. The seven affect regulation strategies were assessed by asking subjects to rate how frequently they used each strategy to regulate their negative feelings in everyday life. Each affect regulation strategy was defined and described by listing a few examples of specific behaviors which illustrated each strategy. The first strategy was *Active distraction*, defined as engaging in pleasant behaviors to distract attention from negative feelings and described by examples such as: going out with friends, doing something fun and laughing. The second strategy was *Cognitive engagement* defined as cognitive strategies using positive thinking to manage negative feelings, with examples such as thinking about positive things, thinking about things that are going well in life and putting things in perspective. The *Behavioral engagement* strategy was defined as doing something to solve the problem which brought on the negative feelings. It was represented by examples such as making plans about how to avoid such problems in future, planning for the future, and taking action to solve the problem. The fourth strategy, *Venting and expressing affect* was defined as behaviors in which people verbally or physically express their affective states. The examples were: letting own feelings out by expressing them, and talking to someone about their feelings. The fifth strategy, *Passive distraction and acceptance*, was defined as passive behaviors to distract one’s attention from negative feelings, with examples such as praying, trying to accept it as my fate, drinking coffee and eating something. *Rumination and withdrawal*, was defined by behaviors intended to analyze one’s own affective states, and was represented with examples such as trying to understand own feelings, thinking about one’s feelings and writing about one’s feelings. The last, seventh strategy, *Waiting*, was defined as not involving in any of the behaviors to manage the negative feelings. It was represented by examples such as doing nothing, letting things wait and daydreaming about time without the problems. Subjects had to report how frequently they used each of the seven strategies to change their negative feelings on a 7-point scale on which 1 was ‘Not at all’ and 7 was ‘Almost always’.

The rationale of defining the seven strategies, and their behavioral descriptors was based on factor analysis done in previous research by Prizmic and Larsen (2006) on 38 mood regulation strategies using the Measure of Affect Regulation Styles (MARS, Larsen & Prizmic, 2004), which yielded seven factors. Due to the nature of the national survey, and limited space in the questionnaire, instead of administering the original 38 i-
tems we applied the approach of representing each factor by one item that included descriptors and examples of the strategy.

Demographic information. Subjects’ personal sociodemographic information was recorded, among them age and gender.

Methods of analysis

First, for analyses of within group comparison (i.e., differences in use of strategies within group of women and men separately; differences in use of strategies within each age group) analyses of variance (ANOVA) for repeated measures were used.

Second, for analyses of gender and age differences in average use of affect regulation strategies a multivariate analysis of variance (MANOVA) was performed with gender (men, women) and age groups (young, middle, aged, old age) as independent variables and seven affect regulations strategies as dependent variables.

RESULTS

The demographic variables of the representative sample of Croatian citizens are presented in Table 1.

Average frequencies of affect regulation strategies

The average frequencies of using seven affect regulation strategies on the whole sample are presented in Figure 1. The results of repeated measure ANOVA yielded a significant main effect for affect regulation strategies (F(6,5244) = 233.1, p < .001). Active distraction, Cognitive engagement and Behavioral engagement strategies were used significantly more than all other groups of regulations strategies. Those three groups of strategies did not differ significantly between themselves. Waiting strategies were used the least followed by Rumination and withdrawal, Passive distraction and Venting and expressing affect.
When data were analyzed separately for each gender, significant differences in use of regulation strategies were found within the group of men ($F(6,2406) = 131.8, p < .001$), as well as within the group of women ($F(6,2832) = 116.4, p < .001$). Men reported to have used more often Active distraction, Cognitive and Behavioral engagement than other strategies (see Figure 2). The same was true for women with the addition of the Venting and expressing which was also used by women as frequently as the other three groups of strategies (see Figure 2). It should be mentioned that differences between men and women in using Active distraction strategies almost reached the significance level ($F(1,858) = 3.68, p < .055$).
The frequencies of using regulation strategies within each age group are presented in Figure 3. Within the group of young people Active distraction was significantly more used than other strategies ($F(6,1320) = 72.6, p<.001$), followed by Cognitive and Behavioral engagement. Used least were Passive distraction and acceptance, Rumination and withdrawal and Waiting.

(AD=Active distraction, CE=Cognitive engagement, BE=Behavioral engagement, V=Venting, PD=Passive distraction, RW=Rumination and withdrawal, W=Waiting)

The results of ranking of the regulation strategies within the middle age group ($F(6,1578) = 103.1, p<.001$) parallel the findings within the aged group ($F(6,1338) = 60.9, p<.001$). Both groups used Behavioral and Cognitive engagement the most, followed by Active distraction. They reported to use Waiting strategies the least.

Within old age group the ranking of regulation strategies slightly changed ($F(6,936) = 49.7, p<.001$). They reported to use Passive distraction and acceptance frequently, as well as Active distraction, Cognitive and Behavioral engagement. Still Waiting strategies were used the least together with Rumination and withdrawal (see Figure 3).

Gender and age differences in affect regulation strategies use

The mean scores and associated standard deviations for seven affect regulation strategies use by gender and four age groups are presented in Table 2.

Main effects for gender and age group. In analyses of average use of affect regulation strategies significant multivariate main effects for both, gender ($F(7,852) = 9.85, p<.01$) and age groups ($F(21,2562) = 6.31, p<.01$) were found.
TABLE 2
Descriptive statistics for average ratings of affect regulation strategies use by gender and age groups (N=891)

<table>
<thead>
<tr>
<th>Affect regulation strategies</th>
<th>Women M (SD)</th>
<th>Men M (SD)</th>
<th>Young M (SD)</th>
<th>Middle M (SD)</th>
<th>Aged M (SD)</th>
<th>Old age M (SD)</th>
<th>Total M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active distraction</td>
<td>4.4 (1.67)</td>
<td>4.6 (1.57)</td>
<td>5.2 (1.49)</td>
<td>4.5 (1.51)</td>
<td>4.3 (1.59)</td>
<td>3.8 (1.70)</td>
<td>4.5 (1.63)</td>
</tr>
<tr>
<td>Cognitive engagement</td>
<td>4.6 (1.56)</td>
<td>4.6 (1.51)</td>
<td>4.9 (1.46)</td>
<td>4.7 (1.53)</td>
<td>4.5 (1.50)</td>
<td>4.1 (1.60)</td>
<td>4.6 (1.54)</td>
</tr>
<tr>
<td>Behavioral engagement</td>
<td>4.6 (1.57)</td>
<td>4.7 (1.48)</td>
<td>4.8 (1.44)</td>
<td>4.8 (1.43)</td>
<td>4.6 (1.47)</td>
<td>4.0 (1.71)</td>
<td>4.6 (1.53)</td>
</tr>
<tr>
<td>Venting and expressing</td>
<td>4.3 (1.70)</td>
<td>3.6 (1.58)</td>
<td>4.4 (1.73)</td>
<td>4.0 (1.60)</td>
<td>3.9 (1.66)</td>
<td>3.6 (1.69)</td>
<td>4.0 (1.68)</td>
</tr>
<tr>
<td>Passive distraction</td>
<td>3.7 (1.68)</td>
<td>3.5 (1.61)</td>
<td>3.6 (1.59)</td>
<td>3.4 (1.67)</td>
<td>3.7 (1.70)</td>
<td>3.8 (1.65)</td>
<td>3.6 (1.66)</td>
</tr>
<tr>
<td>Rumination &amp; withdrawal</td>
<td>3.5 (1.85)</td>
<td>3.1 (1.72)</td>
<td>3.4 (1.83)</td>
<td>3.3 (1.70)</td>
<td>3.4 (1.89)</td>
<td>3.0 (1.74)</td>
<td>3.3 (1.80)</td>
</tr>
<tr>
<td>Waiting</td>
<td>2.7 (1.54)</td>
<td>2.7 (1.59)</td>
<td>3.0 (1.59)</td>
<td>2.5 (1.49)</td>
<td>2.5 (1.51)</td>
<td>2.8 (1.68)</td>
<td>2.7 (1.57)</td>
</tr>
</tbody>
</table>

Univariate tests for gender revealed that this effect was significant for three groups of regulation strategies: Venting and expressing affect (F(1,858) = 37.47, p<.01), Passive distraction (F(1,858) = 7.28, p<.01) and Rumination and withdrawal (F(1,858) = 13.24, p<.01). In other words, while regulating their negative feelings women on average used more often strategies described as Venting and expressing affect, Passive distraction and Rumination than men.

Univariate tests for age groups revealed significant differences for Active distraction (F(3,858) = 26.04, p<.01), Cognitive engagement (F(3,858) = 8.90, p<.01), Behavioral engagement (F(3,858) = 11.56, p<.01), Venting and expressing affect (F(3,858) = 7.28, p<.01) and Waiting strategies (F(3,858) = 6.44, p<.01). The use of Active distraction and Venting and expressing the affect in regulating negative feelings significantly declined by age groups, with the younger group reporting to use it more often than others. On the other hand, Cognitive and Behavioral engagement strategies were significantly less often used by old age group in comparison to all others. Finally, young age group on average used more often strategies defined as Waiting than middle and aged groups. However, they did not differ from old age group in use of Waiting.
Analyses of two-way interactions: gender x age groups. Multivariate main effect for interaction between gender and age groups was significant ($F(7,854) = 2.46, p<.05$). Univariate tests revealed significant interaction only for Venting and expressing affect ($F(3,858) = 10.32, p<.01$). Interaction effect is presented in Figure 4.

Subsequent analyses of the means showed that women in young ($t = 6.0, p<.01$), middle ($t = 2.3, p<.05$) and aged ($t = 3.5, p<.01$) groups used more Venting and expressing affect than men of the same age groups, while for the old age group women and men did not differ in use of these particular strategies. The biggest difference between women and men was found within the young age group.

**DISCUSSION**

The purpose of this study was to examine which affect regulation strategies are used for regulating the negative feelings in everyday life among Croatian citizens. Instead of focusing on a few specific behaviors, we focused on seven different types of affective regulation strategies (i.e., Active distraction, Cognitive engagement, Behavioral engagement, Venting and expressing affect, Passive distraction and acceptance, Ruminiation and withdrawal, and Waiting). These seven strategies are based on research on the Measure of Affect Regulation Styles (MARS) questionnaire (Larsen & Prizmic, 2004; Prizmic & Larsen, 2006). Also, we were interested in gender and age differences in the average use of regulation strategies.

The three most used strategies in affect regulation among Croatian citizens were Active distraction, Cognitive and Behavioral engagement. The frequency of using these strategies was rated between "sometimes" to "often". Some other research also showed that the most frequently used strategies were the active, engagement type of strategies of reappraisal or diversionary strategies (Totterdell & Parkinson, 1999; Parkinson & Totterdell, 1996). In our previous research it was found that the most frequently used strategies were also the most effective ones (Prizmic, 2000). It could be that people on average recognize the effective strategies, i.e. ones that work for dealing with the everyday negative affect, and thus use them more often than ineffective ones. The least used strategy in affect regulation in our sample was Waiting, defined by disengagement in managing the affect rather than doing something about it. It could be said out of this, that people in general reported that they have regulated their affect and rarely reported that they did nothing about it.

Our results showed that men and women differed in the frequency of using different affect regulation strategies. The differences were found in Venting and expressing affect, Rumi-
nation and withdrawal as well as Passive distraction and acceptance that were used more often by women than men. Also, Active distraction strategies were used by men more often than women confirming the findings of Thayer and colleagues (Thayer et al., 1994).

Venting and expressing affect, which was used by women more often than by men, was defined as behaviors in which people show own affective states toward outside. In the literature on gender differences in emotional expressiveness it was found that women were more emotionally expressive than men even when they did not differ in reports of experienced emotion (Kring & Gordon, 1998). Also, Gross and John (2003) found on the student samples that men suppressed emotion more than women. In our study the main effect of gender was moderated by age in the way that differences diminish with age. The highest differences between women and men emerged in the youngest age group (18-29 years), while in the oldest group (60 and over) men and women did not differ in Venting and expressing strategies. In research of McConatha et al. (1997) they examined age and sex differences in emotional control. They found that control of emotions increased with age and that subjects over the age of 55 years scored higher on emotional inhibition (McConatha et al., 1997). Also, the same authors in another research found that older people expressed less their emotion than younger (McConatha et al., 1994). This could partly explain our finding that gender differences in Venting and expressing affect diminished with age. The emotional inhibition in older age might be reflected in less use of strategies oriented toward expressing verbally or physically affective states, thus the frequency of their use in women became no different than in men.

Research on rumination, as also confirmed by our study, showed that women use more rumination strategies such as focusing attention on own feelings, thinking about them, than men. In a series of empirical and theoretical work Nolen-Hoeksema and her coworkers showed that women are more likely to use rumination than men in dealing with negative events (Butler & Nolen-Hoeksema, 1994; Nolen-Hoeksema et al., 1993).

Significant age differences were found in all regulation strategies except Passive distraction and acceptance. Two groups of strategies, Active distraction and Venting and expressing affect, were used more by younger people than by other age groups. This could be partly explained by the type of behaviors and activities used to describe both groups of strategies, including for example, going out with friends, having fun, laughing and showing own affective states. These behaviors are more likely to occur in younger age groups. Older
people were found to score lower than younger in laughter expressiveness in a study on sense on humor (Svebak et al., 2004) and to express emotion less in another study on expression and inhibition of emotions measured by questionnaire (McConatha et al., 1994).

On the other hand, these findings could be viewed in the light of the life-span prospective described by the socioecono-
mic selectivity theory (Carstensen et al., 2003; Lockenhoff & Carstensen, 2004). The situations and types of problems in everyday life are changing across the life span which is followed by the change in the use of different regulation strategies. According to Carstensen's theory, as people age they develop adaptive problem-solving skills which are associated with the better emotion-regulatory skills (Lockenhoff & Carstensen, 2004). The theory postulates that perceiving limited time, which older people are more aware of than younger, leads to motivational change, reexamining the meaning of life and rearranging life goals in order to optimize the positive affect. In other words, older people direct attention to emotionally meaningful aspects of their life and are facing fewer situations that need problem-solving and more situations that require emotion-focused coping strategies. This could explain our finding that strategies involving engagement (cognitive or behavioral) in regulating negative feelings were the least used by older people in comparison to all other age groups. Also, Rumination and withdrawal strategies, which were shown in literature as maladaptive and in some way responsible for prolonging the negative feelings (Nolen-Hoeksema et al., 1999) were the least used in the oldest group. Using less rumination strategies could lead to more positive feelings and maintain a high level of well-being which is predicted by socioeconomic selectivity theory.

In conclusion, the results of present research confirm that there are both gender and age differences in using the regulation strategies to regulate negative feelings in everyday life. However, knowing the limitations of self-report data we have to be careful to interpret these results as conclusive. To replicate and confirm these findings, in future research we should consider implementing other methods of measuring the affect regulation, e.g. by use of experiencing sampling method or informant reports. From the knowledge of the authors this is the first study on the use of affect regulation strategies done on a heterogeneous community sample, which was also a representative one for the Croatian nation. The results can thus give insight into possible cultural differences in the regulating affective states if compared to other nations in future research.
REFERENCES


Dobne i spolne razlike u strategijama regulacije raspoloženja

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Cilj istraživanja bio je ispitati razlike u prosječnoj upotrebi pojedinih strategija regulacije raspoloženja kod ljudi različite dobi i spola. Na reprezentativnom uzorku hrvatskih građana (N=891) ispitano je sedam strategija koje ljudi obično rabe da bi u svakodnevnom životu regulirali/smanjili svoja negativna raspoloženja. Rezultati su analizirani MANOVA-om, gdje su spol i dobne skupine bile nezavisne varijable a strategije regulacije raspoloženja zavisne. Statički značajne razlike u upotrebi pojedinih regulacija raspoloženja utvrđene su i za spol i za dob. Žene su ćešće nego muškarci upotrebljavale strategije izražavanja osjećaja i povlačenja u sebe, što je u skladu s podacima iz literature. Uputstva svih strategija regulacije raspoloženja, osim pasivnog odvlačenja pažnje, značajno se smanjivala s povećanjem godina.
starosti. Jedini interakcijski efekt utvrđen je za strategiju izražavanja osjećaja, koju su žene u mlađoj i srednjoj dobi upotrebljavale češće nego muškarci, dok se u starijoj dobi upotreba te strategije nije razlikovala između muškaraca i žena.

Ključne riječi: regulacija raspoloženja, spol, dob, pozitivna raspoloženja, negativna raspoloženja

Alters- und geschlechtsbezogene Unterschiede bei Strategien zur Steuerung von Stimmungsschwankungen

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Schlüsselbegriffe: Steuerung von Stimmungsschwankungen, Geschlecht, Alter, positive Stimmungen, negative Stimmungen