

Investigating the effect of a brief period of praying in emotional suppression situation on mood and ego depletion

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Abstract

Background and Objective: According to the strength model, self-control is a finite resource that determines the capacity for effortful control over dominant responses and, once expended, leads to impaired self-control task performance, known as "ego depletion". The aim of the present study was to investigate the influence of a brief period of praying in situation of emotional suppression on ego depletion and mood in non-clinical samples.

Method: To achieve this goal, an experimental study was conducted. A total number of 32 students were selected to participate in the experiments via multi-stage cluster sampling, and were randomly assigned to two emotional suppression/ prayer (experiment) and control/control (control) groups. Participants took part in individual sessions. First, they completed several questionnaires such the General Health (GHQ-12), Religious Attitude Scale-Revised (RAS-R), emotion regulation, Brunel Mood Scale (BRUMS-32) and stroop task (pre-tests). Then, each individual watched three negative clips while he/she was asked to suppress the emotions that might be elicited from clips (experimental group) or just watch them naturally (control group). Next, the experiment group was engaged in personal prayer manipulation, whereas the control group didn't do anything. Finally, the mood (BRUMS-32) and self-control performance (stroop task) of all participants were measured again. All ethical issues were observed in this study and the researchers declared no conflict of interests.

Results: After the end of the experiments, the results didn't show any significant difference between the two groups in self-control performance. In addition, both groups reported similar levels of negative mood, but those who first suppressed their emotions and then prayed had greater positive mood compared to the control group.

Conclusion: The results showed that individuals who used a combination of emotional suppression and prayer while being exposed to negative emotions showed higher positive mood, and had more vigor, calmness and happiness compared to those who behaved naturally.

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Summary

Background and Objective: Self-control is defined as the capacity of the individual to alter, modify, change, or override his or her impulses, desires, and habitual responses (1). Recently, researches have

proposed that self-control is a limited commodity that restricts self-regulatory capability. Inspired by this approach, Baumeister and colleagues developed the *strength model of self-control*. A major tenet of the model is that engaging in acts of self-control draws from a limited "reservoir" of self-control which, when depleted, results in reduced capacity for further self-

regulation. They termed the state of diminished self-control "strength" *ego depletion* (1-3).

The strength model of self-control posits that executive functioning (such as response inhibition and cognitive flexibility), as the agentic aspect of self, depends crucially on limited psychological resources akin to a muscle. That is, executive functioning may diminish following the depletion of individuals' resources, leading to a wide variety of behavioral problems (e.g., addictions, violence, eating disorders) (1-3).

Emotion regulation is another mental process that needs self-control and, therefore, affects ego depletion. Given the strength model of self-control, emotion regulation requires overcoming internal tendencies to give proper emotional responses to environmental stimuli. Hence, by vacating self-control resources, emotion regulation may deplete ego (4). Emotional suppression is an emotion regulation strategy defined as the individual's conscious effort to inhibit and suppress emotion-expressive behavior and its internal experience at the time of emotional arousal (5). Those using emotion suppress strategy are always monitoring their behaviors to modify their behavioral expressions when emotions come up. This process is energy demanding and may lessen cognitive resources (6). However, findings about the effects of emotional suppression are controversial. On the one hand, results of clinical research declare that long-term attempts to deliberately declining emotions through suppression is totally maladaptive, and similar strategies may negatively affect one's physiological, cognitive and social relationships in long term (7). "*Maladaptive suppression*" hypothesis grew out of these findings. On the other hand, several studies support the role of emotional suppression in effective adjustment with emotional circumstances and point to the benefit of suppression at least for healthy individuals (8), or in clinical situations (9); ("*Adaptive suppression*" hypothesis). Additionally, the mutual relationship between mood and affect with ego depletion has been approved. Previous research reported the effect of negative mood on evacuation of psychological resources (3) and the role of positive emotions in confronting traces of ego depletion and facilitation of its subsequent self-control (10).

Scholars have identified some factors affecting sensitivity reduction toward ego depletion or neutralizing its effects through resources' retrieval. Among these factors, religion, specially praying, can be mentioned. Various research with experimental methods support the role of long-term praying on self-control enhancement (11-12). In addition, short-term traces of praying on anger mitigation (13), enhancement of sense of value and inner peace (14), inhibition of ego depletion (15), or neutralization of its adverse effects (16) have been reported.

Method: This is a quasi-experimental study using the pretest-posttest design with a control group. The statistical population consisted of all students of Shahed University in 2016-17. Multi-stage random

cluster sampling was used to form the sample. First, among the faculties, three ones and then, four classes from each faculty were selected randomly. Next, the subjects were chosen among these classes haphazardly. Totally, 32 students (19 men; $M_{age}=22.65$; $SD=2.97$), all of whom belonged to Shia sect, were randomly divided into the emotion suppress/praying ($N=16$; experimental) and control ($N=16$) groups based on predetermined random setup. All the subjects took part in the experiment process individually.

Before entering the experiment process, each subject completed General Health Questionnaire (GHQ-12), Religious Attitude Scale-Revised (RAS-R), and John and Gross Emotion Regulation Questionnaire (related to the study variables), as well as Brunel Mood Scale (BRUMS) and Color-naming Stroop task (pretest; these variables were not significantly different in both groups before performing the experiments). Then, several negative emotional clips were shown. The control group was asked to watch the clips naturally, but the experimental group had to suppress their emotions that would be elicited from clips. In the next phase, the experimental group subjects prayed freely for 5 minutes, while the other subjects received no instruction and immediately entered the posttest phase after receiving emotion regulation intervention. At the final stage, all subjects' mood and self-control performances (stroop test) were re-evaluated. Also, the subjects' success in following the received instructions was measured via Visual Analogue Scale (VAS) in both stages.

Results: Outcomes of the t-test about differences between pretest and posttest scores revealed that level of positive mood (and vigorous, calmness and happiness) in the experimental group significantly improved, while both groups were the same in terms of level of negative mood and its subscales. Furthermore, the results of t-test in the stroop task did not manifest a significant difference in self-control performances between the two groups.

Conclusion: The results showed that individuals who used a combination of emotional suppression and prayer while being exposed to negative emotions showed higher positive mood, and had more vigorous, calmness and happiness compare to those who behaved naturally.

Consistent with the aforementioned adoptive suppression hypothesis, findings of the present study supported the positive role of emotion suppress strategy in dealing with negative emotion and manifested that using this strategy besides praying not only did not lower the subjects' mood, but also enhanced levels of positive mood, vigor, calmness and happiness. Therefore, it can be assumed that emotional suppression is beneficial at least for healthy individuals and may bring about affirmative outcomes in certain situations.

Findings of this study about helpful effects of praying is similar to that of several former studies (11-14, 17-19). In addition, the role of praying in increasing positive mood is consistent with religious

teachings of Islam: believing in the God and doing religious practices (e.g., praying) calm hearts as mentioned in the verse “*Those who have believed and whose hearts are set at assured by the remembrance of Allah; unquestionably, by the remembrance of Allah hearts are assured*” (20).

Regarding these findings, it can be claimed that as praying is considered a shield and weapon in Islamic narrations (21), at the time praying a positive image of a strong helper is formed in the prayer’s mind; this image can create a kind of mental strength and calmness (22) and, by retrieving ego resources, improves one’s mood and affect. Besides, people usually participate in a social interaction while praying. It is stated that even short social interactions can foster feeling of safety and mental peace through “resource priming” (23) and may be useful for undermining effects of ego depletion.

Ethical Considerations

Compliance with ethical guidelines

The Ethics Committee of Shahed University has confirmed this research.

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Conflict of interest

The authors declared no conflict of interest.

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