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Encouraging Active Stress Management Among Graduate Students: Formative Research for A Persuasion Through The Stages Approach

Samantha Nazione[1]

[1] Michigan State University; Berry College

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Abstract

Stress is prevalent among graduate students and can be problematic for their work, academics and health. Interventions aimed at stress management have aided student populations in the past and may be appropriate among graduate students, especially if theoretically driven. An online survey guided by social judgment theory, the transtheoretical model, and perceived behavioral control was conducted to collect formative research for an intervention regarding stress management for graduate students. Although results demonstrate stress is common among this audience and many students are actively managing their stress, negative academic and lifestyle consequences from stress are still abundant. A stage approach through a social norms intervention involving the assistance of faculty may improve this issue.

Index terms— graduate students, stress management, social judgment theory, transtheoretical model, formative intervention research.

1 Introduction

merica's two million graduate students are at risk for chronic stress due to academic and career demands (Heins, Nickols Fahey, & Leiden, 1984; Mallinckrodt, Leong, & Kralj, 1989; **??**CES, 2007;Rocha-Singh, 1994). Consequences of chronic stress include poor academic performance, greater susceptibility to chronic and life-threatening diseases such as cancer and heart disease, and economic losses for employers **??**Akgun & Ciarrochi, 2003; Goetzel, Anderson, Whitmer, Ozminkowski, Dunn, & Wasserman 1998; **??**IH, 2002). Nearly half of graduate students report stress significantly affects them and they feel overwhelmed frequently or constantly **??**Hyun et al., 2006). Studies of medical, law, and graduate students have found stressors include time restrictions, economic issues, academic issues, environmental issues, familial issues, dealing with deadlines, ambiguous expectations, and trying to balance school with social life **??**Heins et al., 1984; **??**yun, Quinn, Madon & Lustig, 2006;Mallinckrodt et al., 1989;Rocha-Singh, 1994).

A common response to stress is to utilize coping mechanisms (Lazarus & Folkman, 1984;Selye, 1956; **??**976). Numerous coping styles of varying levels of efficacy exist including avoidance, wishful thinking, & Becker, 1985). One effective strategy to manage stress and build individuals' coping repertoires is through crafting interventions (Murphy, 1996; Serxner, Gold, Grossmeier, Anderson, 2003; Sheehy & Horan, 2004).

2 a) Interventions

Stress interventions that have been conducted for undergraduate and law students have demonstrated positive impacts on stress management. For example, an online stress intervention for undergraduate students called My Student Body-Stress included peer stories about stress, frequently asked questions about stress, health news, and interactive tools to learn about stress consequences and management techniques, whereas the control website only contained text-based stress information. The experimental participants improved their ability to manage stress

significantly as compared to control participants through such methods as increased exercise and decreased anxiety (Chiauzzi, Brevard, Thurn, Decembrele, & Lord, 2008). Another example of a successful intervention for law students utilized stress inoculation training (SIT), which is the process of forewarning individuals about upcoming stressors and teaching them how to cope. Law students who received SIT were found to have significantly lower emotional, personal, and general stress, as well as lower levels of anxiety and irrationality as compared to nonparticipating students. Additionally, participants in the bottom 20% of their class improved academically (Sheehy & Horan, 2004).

As evidenced by this literature, a stress management intervention targeting graduate students has the potential to have several beneficial outcomes. Improving attitudes toward stress management, while emphasizing the benefits of available services in coordination with an intervention, will ideally result in both better health and academic outcomes for graduate students as well as produce a return on the university's financial investment in this population. Persuasive communication theories provide solid frameworks for formative research on such objectives. **??**Cohen & Welch, 2000;Murphy, 1996). Following this advice, this study uses two theories of change, social judgment theory (SJT; Sherif, Sherif, & Nebergall, 1965) and the transtheoretical model (TM; Prochaska, Velicer, DiClemente, & Fava, 1988), in addition to using perceived behavioral control (PBC) from the theory of planned behavior (TPB; **??**jzen, 1985). Together, these theories provide a firm direction for understanding student attitudes and barriers toward stress management and identifying directions for an intervention to promote stress management attitude and behavior change.

3 b) Theories

SJT proposes that in order to change attitudes, the audience's attitudes toward the full spectrum of possible stances for a particular topic must be assessed (Sherif & Hovland, 1961;Sherif, Sherif, & Nebergall, 1965). It is necessary to know which positions the audience agrees with (latitude of acceptance; LOA), disagrees with (latitude of rejection; LOR), and which they neither agree nor disagree with (latitude of noncommitment; LON). These latitudes are commonly measured on ordered alternative scales (OAS), which express the different positions an individual could take toward a specific topic. SJT contends that only messages within the latitude of acceptance or noncommitment will elicit positive attitude change, with messages within the latitude of noncommitment producing the most favorable attitude change. Alternatively, messages in an individual's latitude of rejection will prevent attitude change or produce undesirable attitude change. Hence, it may take several persuasive attempts to move individuals to the desired attitude (Sherif et al., 1965).

The TM proposes that behavior change is a process that occurs in distinct, conceptual stages (DiClemente & **??**rochaska, 1982;Prochaska, 1984;Prochaska, Velicer, DiClemente, & Fava, 1988). The TM has two main parts: the stages of change and the ten processes of change. This manuscript will focus on the stages of change. There are six stages that people may experience when making lifestyle changes. In the precontemplation stage, individuals have no intention of changing for at least the next six months. In the contemplation stage, individuals have the intention of changing within the next six months. In the preparation stage, individuals' have the intention to change in the next month and prepare themselves. In the action stage, the change occurs and in maintenance, change is sustained. Finally, in termination, the individual feels no temptation to relapse and feels completely able to maintain their changed lifestyle (Prochaska et al., 1988).

The PBC construct originates from the TPB, and it is defined as the perceived degree of ease for performing a particular behavior **??**Ajzen, 1985). PBC has two related components: perceived self-efficacy and perceived controllability **??**Ajzen, 2002). Perceived selfefficacy is an individual's belief that they are capable of performing a given behavior. Perceived controllability is an individual's perception of the likelihood that impeding or facilitating factors, of varying power, will be present and affect their ability to perform the desired behavior **??**Ajzen, 2002). These can often be thought of as barriers that prevent the individual from engaging in the behavior. Past literature supports that perceived control is a crucial factor in stressful situations (Lazarus & Folkman, 1984;Nonis et al., 1998). A high level of perceived control typically strengthens behavioral intention, increases behavioral effort, and increases perseverance **??**Ajzen, 2002).

SJT and the TM both acknowledge that attitude and subsequent behavior change is a slow process, often occurring in stages. They also recognize the benefit of understanding the full spectrum of these stages in order to create effective messages. However, SJT is focused on attitude change, while the TM is focused on behavior change. PBC adds two essential components of behavior change, overcoming barriers and self-efficacy. Together, they build upon each other for increased predictability of outcomes, which will provide guidance for campaign creation.

As stress has been determined to be a major problem for graduate students, the goal of this research is to determine which messages will be most likely to persuade this target audience to more effectively manage their stress. Three research questions were generated. The participants were 572 Master's and Ph.D. students from a large Midwestern university. Forty-four percent of the participants were female, 16% were male and 40% of students did not list their gender. Fortyseven percent were European American, 2.3% were African American, 5.3% were Asian, 0.3% were Arabic, 0.5% were Latino, 0.6% were Pacific Islander, 5.4% were other, and 40.9% did not list their ethnicity. Fifteen percent of participants were in a MA program, 14.3% were in a MS program, 30.2% were in a PhD program and 40.4% did not list their program. Ages of b) Procedures This research utilized an online survey. The survey was pretested using ten eligible individuals. As a result of this pre-test, a definition

of stress was added and wordings of several questions were altered slightly to improve clarity. A randomly generated list of graduate students totaling 25% of the total graduate student population were notified of their eligibility through an email delivered by the university's Office of the Registrar. All information was collected anonymously.

First, participants read the definition of stress (a negative feeling of being under emotional pressure) and reported whether they agreed, disagreed, or were neutral regarding the spectrum of nine positions on two ordered alternative scales (OAS). These scales were modeled after previous OASs for SJT research (Sherif & Hovland, 1961). The first OAS measured the degree of certainty that students had regarding whether they could be successful during graduate school without being stressed. The second OAS measured students' judgments regarding whether it is essential for graduate success to either actively manage or simply endure stress.

Following these scales, participants reported whether or not this stress had caused them academic harm. Questions were then asked regarding coping mechanisms, stress management barriers, and methods for overcoming these barriers. Participants were able to choose multiple applicable answers, and they were asked to rank their responses from most to least significant, with one being the most significant. Past studies of stress were used as guides for the creation of these lists **??** Seven point Likert scales, (1 = SD, 7 = SA), were used to assess participants' beliefs about their ability to manage stress, whether their stress was indicative of their effort and likelihood of success, whether they experienced barriers to stress management, and their capacity to overcome those barriers (measuring PBC). Participants then identified which stage of the TM they were in with regard to managing their stress, using a scale adapted from past work (Nigg et al., 1999). Finally, participants reported demographic information including their age, gender, race, and program level (MA/MS or PhD).

4 III.

5 Results

Student stress levels were assessed on a seven point Likert scale (1 = very low stress on the average day, 7 = very high stress on an average day). The mean score was 4.23 (SD = 1.43). Students were also asked to report how often they were negatively stressed (1 = never, 7 = all the time). The mean for this scale was 4.84 (SD = 1.21). Participants were also asked to respond to the question "while in graduate school, if I am not stressed, I worry that I am not working hard enough to be successful" (1 = SD, 7 = SA). The mean for this question was 3.67 (SD = 1.97). Additionally, close to half of participants (N = 406, 48.8%), reported that stress had negatively impacted their academic career in some form.

6 a) Research Question One

The first research question was interested in the latitudes of each statement on both of the OAS scales used in this research. The statements used for the OAS scales can be found in Table 1. For each OAS scale, four non-parametric chi-square tests were run to determine the latitude of each statement. The first chisquare test determined whether there were significant differences between the latitudes (the percent choosing agree, neutral and disagree for each statement on each OAS scale). The remaining three chi-square tests determined what specific latitudes differed by comparing the percentage choosing agree, to the percentage choosing neutral; the percentage choosing neutral to the percentage choosing disagree; and the percentage choosing agree to disagree. Statements were determined to fit in the LOA if the percentage of participants selecting "agree" was significantly greater than the percentage selecting "neutral" or "disagree." Similarly, if the significantly greatest percentage of participants chose "neutral," or "disagree" the statement was determined to be in the LON or LOR respectively.

The first OAS scale focused on the student's view of how stress was associated with success during graduate school. The first five statements were found to be in the latitude of acceptance (LOA). The last four statements were found to be in the latitude of rejection (LOR). No statements resided in the student's latitude of non-commitment (LON). Table 1 shows the percentages, significantly different groups, p-values and chi-square statistics from the overall chi-square tests run on each statement, sample sizes, and latitudes.

The second OAS scale examined students' views of how active stress management was associated with success in graduate school. The first four statements fell under the LOA. The final five statements fell under the LOR. None of the statements fell under the LON. Table 2 shows the percentages, significantly different groups, p-values and chi-square statistics from the overall chi-square tests run on each statement, sample sizes, and latitudes. The second research question centered on determining graduate student positions along the b) Research Question Two stages of change continuum. This research question was investigated by examining the frequencies of response to a question which asked students to select the stage that depicted their current stress management activities. Most of the students who answered this question (N = 339) selected the maintenance phase, followed by contemplation, preparation, precontemplation, and action. A non-parametric chi-square test demonstrated that these categories were significantly different from each other, ?2 (4, n = 339) = 236.74, p < .001. More specifically, the maintenance phase was found to include significantly more participants in comparison to the precontemplation phase, ?2 (1, n = 218) = 95.12, p < .001, the contemplation phase, ?2 (1, n = 225) = 83.42, p < .001, the preparation phase, ?2 (1, n = 221) = 89.96, p < .001, and the action phase, ?2 (1, n = 218) = 95.12, p < .001. None of the other categories were found to be significantly different from each other. Table 3 reports specific frequencies for each phase.

7 c) Research Question Three

The third research question was specifically interested in graduate students' current levels of PBC regarding stress management and the factors that contribute to those levels. First, students were asked if they felt they could effectively manage their negative stress (1 = SD, 7 = SA). This question had a mean of 5.28 (SD = 1.33). Next, students were asked to rank the techniques they found most valuable for managing their negative stress out of 20 categories. The three techniques most frequently ranked as the number one negative stress management tool were exercise (30%), seeking support from friends and family (16.9%) and making a plan of action or a to-do list (16.8%). Table 4 reports the percentage of participants who ranked each tool as number one.

Research question three also examined the barriers students experience in terms of stress management. To explore barriers to stress management, participants were asked to rank the barriers that applied to them out of 19 categories. The most frequently reported barriers ranked as number one were stress management was not a priority (36.1%), not having enough time (35.9%), and having too many responsibilities (19.2%). Table 5 reports the percentage of participants who ranked each barrier as number one.

Participants were then asked to report if they felt they could overcome these barriers on a seven point Likert scale (1 = SD, 7 = SA). The mean was 5.08 (SD = 1.50). To follow up, participants were asked to rank the methods they used to overcome these barriers from 12 possible methods. The most frequently cited methods ranked number one were to prioritize (49.1%), cut back on responsibilities (19.0%), and learn to let things go (16.1%). Table 6 reports the percentage of participants who ranked each method as number one.

IV.

8 Discussion

The purpose of this study was to explore how students view stress and its relationship to success in graduate school, examine the current actions students are taking to address their stress levels, and understand the barriers students experience when it comes to managing stress. This information, taken via an online survey, is essential in creating a basis for interventions targeting stress management in graduate students.

The results of the OASs used suggest that students view stress to be an inevitable, and perhaps necessary, aspect of the graduate student experience that should be managed. Specifically, the results from the second OAS indicated that "to be successful in graduate school it is absolutely essential to actively manage my stress" was in the student's LOA. As positive attitudes toward stress management was the preferred attitude, this finding would suggest that messages encouraging stress management as a way to be successful in graduate school should be used. Despite this, results from the first OAS indicate that students do not believe that one can be successful in graduate school without being stressed, as these statements were firmly in the LOR. Hence, messages like this should not be disseminated to the graduate students as they may produce unintended effects (Sherif et al., 1965). Following SJT, the best statement to begin promoting a positive attitude toward stress management would be "It is somewhat likely for me to be successful during graduate school without being stressed," which was the closest statement, within the student's LOA, to our preferred attitude. Also of importance regarding the OAS findings, is that none of the messages addressing stress and graduate school success fell into the students' LON. This may be indicative of student's high ego-involvement, or commitment to this issue, and therefore, demonstrates that the persuasion process would be difficult (Sherif et al., 1965). In this case, persuasion will be a process that needs to take place in stages to move students toward more healthy attitudes of stress and stress management.

In line with students' belief that success requires active stress management, significantly more students indicated that they were in the maintenance stage, than any other phase. These students indicated that they have been taking action to manage their stress for at least the past six months. The remaining students were nearly equally distributed between the precontemplation, contemplation, preparation, and action stages.

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When the SJT and TM findings are viewed in light of one another, it appears that students believe that although stress is a natural part of the graduate school experience, managing stress is also an important aspect to being successful in graduate school. Furthermore, the majority of students (64.3%) indicated that they had at least started the process of actively managing their stress. Nonetheless, results also suggested that students often do feel stressed, that they feel capable of dealing with stress, and yet they are still suffering from the consequences associated with stress. Many students indicated that stress did affect their academic performance. When it came to managing this stress the three most common techniques were to exercise, seek support from friends and family, and make a to-do list. Notably, these are all positive methods, whereas techniques such as taking drugs or alcohol received few responses.

Barriers to managing stress included stress management not being a priority, not having enough time and having too many responsibilities. Taking into account past research, it appears that a lack of time/too many responsibilities is a leading cause of stress (Heins et al., 1984; Hyun, Quinn, Madon & Lustig, 2006; Mallinckrodt et al., 1989;Rocha-Singh, 1994), but also the reason that students do not engage in stress management activities. Furthermore, it also appears that many students do engage in stress management activities, but prefer to find answers on own rather than attending university-offered programs. Seeking out information on stress management

was the strategy that had the lowest ranking. . There are several different types of interventions that could be useful in addressing stress management for graduate students. One of the ways this can be done is to create an intervention addressing stress management for graduate students. From an SJT perspective, it appears that the most effective messages that will begin to move students toward the preferred attitude are those which emphasize that is might be possible to succeed in graduate school without stress and that it is essential to mange stress for success. By pairing these messages with efficacy messages that highlight the more individual, non-time consuming activities that students can do to manage stress, students may be more willing to take action. A past intervention that was web-based may provide a good foundation when the results from this study, which may suggest a need for privacy, are taken into account **??**Chiauzzi et al., 2008).

Intervention messages also need to utilize the stages of change model. It would be beneficial to have two targeted audiences, those who already practice stress management and those who do not. Targeting messages would be devised using the ten process of change (DiClemente & **??**rochaska, 1982;Prochaska, 1984;Prochaska, et al., 1988). Messages targeting those who already engage in stress management should focus on providing belief enforcement and support messages, while messages targeting those who are in the pre-contemplation to preparation stages could focus on stress awareness and efficacy building.

Overall, a social norms focused intervention may be effective, given that students do not appear to openly accept help with stress management. Messages could include statistics demonstrating that the majority of graduate students actively manage their stress, and also present testimonials describing how fellow students manage their stress using various non-time consuming activities. An online intervention similar to Chiauzzi et al., (2008) may be successful in that it allows for students to seek stress management assistance in a more private setting.

Additionally, interpersonal level mentorships from supervisors (faculty) and peers is another strategy that has been shown useful in addressing workplace stress (Sosik & Godshalk, 2000) and student stress (Allen, McManus, & Russell, 1999; Kersling & Kochar, 1990). Similarly, mentorships could be beneficial at the graduate level. Instructors and advisors can use nonintrusive support messages that reflect students can succeed in graduate school without high levels of stress as well as point students to healthy management strategies. Modeling healthy stress management behaviors may also be effective.

10 b) Limitations and Future Research

This study experienced a large amount of attrition. We believe this might be a result of the format of the survey, including the redundancy of answering OAS scale questions and the ranking items on the survey. Students were asked to rank only those items which applied to them rather than ranking complete lists, but we know from participant feedback that these directions were misunderstood. Due to the generally descriptive nature of this study we do not feel this limitation trivializes our results.

Another limitation was the timing of this study. Data collection took place after the beginning of the summer term. In order to examine the effects of this timing, students were asked to report their current stress levels as relative to normal stress levels at the end of the survey on a Likert scale (1 = much less stressed than normal, 5 = much more stressed than normal). The mean for this question was 2.84 (SD = 1.10). A one- **??**000). In this manner, targeted campaigns could be crafted for particular groups in order to increase effectiveness. Finally, the campaign should be carried out as well so that it may be evaluated.

11 Volume

V.

12 Conclusion

Stress costly to those who experience it, as well as to their employers. Health, learning, work, and success are at risk, however little research and few interventions have been completed on college campuses for graduate students. This study used two persuasive communication theories SJT and the TM, along with the persuasive construct of PBC, to examine graduate students' attitudes and behaviors in favor of stress management. Findings from this proposed study could be used to produce a stress management invention for graduate students using both mediated messages as well as interpersonal influence. Such an intervention would benefit graduate students' health and academics, while reducing costs for universities nationwide.

13 References Références Referencias

[1] [2]

[1] © 2014 Global Journals Inc. (US)

[2] © 2014 Global Journals Inc. (US) To be successful during graduate school, it would be best to endure my stress 74.5a 18.3b 7.2c 314.02 p<.001

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Figure 1: RQ 1 :

Figure 2:

1

1. Allen, T. D., McManus, S. E., & Russell, J. E. A. (1999). Newcomer socialization and stress: Formal peer relationships as a source of support. Journal of Vocational Behavior, 54, 453-470. doi: 10.1006/jvbe.1998.1674
2. Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl and J. Beckmann (Eds.), Action control: From cognition to behavior (pp. 11-39). New York: Springer.
3. Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. Journal of Applied Social Psychology, 32, 665-683. doi: 10.1111/j.1559-1816.2002.tb00236.x
4. Akgun, S., & Ciarrochi, J. (2003). Learned resourcefulness moderates the relationship between academic stress and academic performance. Educational Psychology, a. 23, 287-294. doi: 10.1080/0144341032000060129
5. Barefoot, J. C., Dahlstrom, W. G., & Williams, R. B. (1983). Hostility, CHD incidence, and total mortality: A 25 year follow up study of 255 physicians. Psychosomatic Medicine, 57, 366-372.
6. Bekker, M. H. J., Nijssen, A., & Hens, G. (2001). Stress prevention training: Sex differences in types of stressors, coping, and training effects. Stress and Health, 17, 201-218. doi: 10.1002/smi.900

*[Note: *Bolded latitudes represent whether the statement fell in the latitude of acceptance, non-commitment, or rejection. The letters next to percentages indicate significantly different groups.]*

Figure 3: Table 1 :

2

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Statement	% Dis-agree	% Neu-tral	% Agree	? 2	p value	N
To be successful during graduate school it is absolutely essential to actively manage my stress	5.4a	26.3b	68.3c	249.59	p<.001	407
To be successful during graduate school, it would be best to actively manage my stress	2.7a	11.1b	86.2c	515.03	p<.001	405
To be successful during graduate school, it would probably be better to actively manage my stress	3.0a	13.7b	83.3c	461.01	p<.001	402
To be successful during graduate school, it might help to actively manage my stress	4.9a	20.9b	74.1c	321.47	p<.001	406
Whether I actively manage my stress or endure my stress is not central to being successful during graduate school	64.1a	24b	11.9c	182.50	p<.001	404
To be successful during graduate school, it might help to just endure my stress	50.4a	29.2b	20.4c	56.08	p<.001	401
To be successful during graduate school, it would probably be better to just endure my stress	64.7a	25.1b	10.2c	190.19	p<.001	402

*[Note: *]*

Figure 4: Table 2 :

3

Question

Figure 5: Table 3 :

4

Technique

Figure 6: Table 4 :

5

Barrier

Figure 7: Table 5 :

6

as Number One

Figure 8: Table 6 :

[Misra et al. ()] 'Academic stress of college students: Comparison of student and faculty perceptions'. R Misra , M Mckean , S West , T Russo . *College Student Journal* 2000. 34 p. .

[Macgeorge et al. ()] *Academic stress, supportive communication, and health. Communication Education*, E L Macgeorge , W Samter , S J Gillihan . 10.1080/03634520500442236. 2005. 54 p. .

[Sherif et al. ()] *Attitude and attitude change. The social judgmentinvolvement approach*, C W Sherif , M Sherif , R E Nebergall . 1965. Philadelphia, PA: W. B. Saunders Company.

[Misra and Mckean ()] 'College students' academic stress and its relation to their anxiety, time management, and leisure satisfaction'. R Misra , M Mckean . *American Journal of Health Studies* 2000. 16 p. .

[Sheehy and Horan ()] 'Effects of stress inoculation training for 1st year law students'. R Sheehy , J J Horan . 10.1037/1072-5245.11.1.41. *International Journal of Stress Management* 2004. 11 p. .

[Nonis et al. ()] *Influence of perceived control over time on college students' stress and stress-related outcomes*, S A Nonis , G I Hudson , L B Hudson , L B Logan , C W Ford . 10.1023/A:1018753706925. 1998. 39 p. . (Research in higher education)

[Sosik and Godshalk ()] 'Leadership styles, mentoring functions received, and job-related stress: A conceptual model and preliminary study'. J J Sosik , V M Godshalk . 10.1002/(SICI)1099-1379(200006)21:4<365. *Journal of Organizational Behavior* 2000. 21 p. . (AID-JOB14>3.0.CO;2-H)

[Prochaska et al. ()] 'Measuring the processes of change: Applications to the cessation of smoking'. J O Prochaska , W F Velicer , C C Diclemente , J L Fava . 10.1037/0022-006X.56.4.520. *Journal of Consulting and Clinical Psychology* 1988. 56 p. .

[Kersling and Kochar ()] 'Mentors in graduate medical education at the Medical College of Wisconsin'. R A Kersling , M S Kochar . *Academic Medicine* 1990. 65 p. .

[Rocha-Singh ()] 'Perceived stress among graduate students: Development and validation of the graduate stress inventory'. I A Rocha-Singh . 10.1177/0013164494054003018. *Educational and Psychological Measure* 1994. 54 p. .

[Prochaska ()] J O Prochaska . *Systems of psychotherapy: A transtheoretical analysis*, 1984. (California: Brooks-Cole)

[Mallinckrodt et al. ()] 'Sex differences in graduate student lifechange stress and stress symptoms'. B Mallinckrodt , F T L Leong , M M Kralj . *Journal of College Student Development* 1989. 30 p. .

[Sherif and Hovland ()] *Social judgment: Assimilation and contrast effects in communication and attitude change*, M Sherif , C I Hovland . 1961. New Haven, MA: Yale University Press.

[Nigg et al. ()] 'Stages of change across ten health risk behaviors in older adults'. C R Nigg , P M Burbank , C Padula , R Dufresne , J S Rossi , W F Velicer . 10.1093/geront/39.4.473. *The Gerontologist* 1999. 39 p. .

[Murphy ()] *Stress management in work settings: A critical review of health effects*, L R Murphy . 1996. American Journal of Health Promotion. 11 p. .

[Stress system malfunction could lead to serious, life threatening disease ()] *Stress system malfunction could lead to serious, life threatening disease*, http://www.nih.gov/news/pr/sep2002/nichd-09.htm 2002. National Institute of Health

[Lazarus and Folkman ()] *Stress, appraisal, and coping*, R S Lazarus , S Folkman . 1984. New York, NY: Springer.

[Taylor ()] S E Taylor . *Stress. In Health Psychology*, (Boston, MA) 2006. McGraw Hill. p. . (6th ed.)

[Serxner et al. ()] 'The relationship between health promotion program participation and medical costs: A dose response'. S A Serxner , D B Gold , J J Grossmeier , D R Anderson . *Journal of Occupational and Environmental Medicine* 2003. 45 p. .

[Selye ()] *The stress of life*, H Selye . 1956. New York, NY: McGraw-Hill.

[Vitaliano et al. ()] 'The ways of coping checklist: Revision and psychometric properties'. P P Vitaliano , J Russo , J E Carr , R Maiuro , J Becker . doi: 10.1207/ s15327906mbr2011. *Multivariate Behavioral Research* 1985. 20 p. .

[Total graduate fall enrollment in degreegranting institutions, by attendance status, sex of student, and control of institution: 196 *Total graduate fall enrollment in degreegranting institutions, by attendance status, sex of student, and control of institution: 1969 through*, http://nces.ed.gov/programs/digest/d07/tables/dt07_197.asp 2007. 2005. National Center for Education Statistics (NCES