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INTRODUCTION

I. ACADEMIC BURNOUT

Frequently, students in the domains of health go through episodes of severe stress when increased cognitive demands are associated with time pressure and this can further turn into a burnout syndrome. Academic burnout is defined as a feeling of exhaustion due to high academic requirements and demands, which makes learners develop negative attitudes and pessimistic feelings about assignments. Subjectively, this can be experienced as «an engine that has been run at a high speed for too long» and it affects one in two medical and health allied students. It is also known that burnout is associated with physical and psychological distress, lower academic performance, dropout and suicidal ideation.

II. PURPOSE OF THE MANUAL

This manual provides an overview of the state of art information regarding the identification, prevention and effective interventions for managing academic burnout. It is aimed mainly at students (medical and allied health) but the professors, student advisors and student counseling specialists can also benefit from

the knowledge included. The information presented in this manual was gathered through an extensive review of the published academic literature (in English), conducted between December 2020 and March 2021.

The manual is divided into three parts. The first provides an overview of information related to detecting and diagnosing burnout and includes a definition of the burnout syndrome, a description of the evolution of burnout in time (i.e., a processual perspective), an overview of the warning signs of burnout, a list of self-assessment tools for detecting burnout as well as descriptions of the most frequently encountered risk and protective factors.

The second part deals with the prevention of burnout, and discusses topics stress reduction strategies, increasing the ability to recharge, and organizational level activities that can support the prevention of burnout.

Lastly, the third part presents a series of activities which are effective in alleviating the symptoms of burnout, such as health and fitness, relaxation strategies, self-understanding activities, development of coping skills, and reaching out for social support. These parts can be read successively, but you can also go directly to the part that is relevant to you at a certain moment in time.

III. BACKGROUND OF THE MANUAL

This burnout manual has been created as part of a wider project, funded by ERASMUS+2020 (Agreement number 2020-1-RO-10-KA203-080261), that aims to develop an extensive panel of skills, tools and normatives, which would enable their users to efficiently manage issues related to academic burnout, early in their professional formation.

The research team consists of European partners from Bulgaria, Cyprus, Italy, Portugal, Romania and Spain. The project began in December 2020 and will conclude in May 2023.

Throughout the two and a half years the research will address four main objectives: 1. Raising awareness about burnout and providing on a wide scale up-to-date, evidence based information focused on the identification, prevention and interventions for academic burnout; 2. Improving the wellbeing of medical and allied health students who are at risk of developing academic burnout and developing accessible online self-assessment tools; 3. Improving the skills of medical and allied health students who directly experience burnout and of staff working in university support services to whom they may address; and 4. Drive policy changes: providing recommendations for developing normatives and regulations designed to address and/or prevent academic burnout.



To achieve these objectives, the project will deliver four intellectual outputs (IOs), of which this manual represents the first.

The other IOs are:

- 1) IO2: Burnout web platform a self-screening and self-help web-based application for students;
- 2) IO3: Curriculum for students and Train-the-trainer for support staff-teaching students and academic/administrative staff essential information about burnout symptoms, risk factors and resources, prevention, and available counseling and psychotherapeutic options;
- 3) IO4: Policy toolkit a set of recommendations for addressing academic burnout at the university level, along with a methodology for the adaptation of these recommendations.

BURNOUT DIAGNOSIS

I. BURNOUT - A THREE-DIMENSIONAL SYNDROME

The term "burnout" has been known since the 70s, when the American psychologist Freudenberger used it to describe the consequences of severe stress and high ideals in "helping" professions. Since then, researchers have shown that burnout can affect anyone, including individuals at the beginning of their career.

Burnout represents an association of emotional exhaustion, depersonalization (or cynicism), and low personal accomplishment, that can occur among individuals who have people-oriented professions, such as human services, education, and health care".

This definition has been confirmed in the recent International Classification of Disorders (ICD-11)², which considers burnout (code QD85) as a "phenomenon in the occupational context".







Emotional exhaustion is expressed as feelings of being overwhelmed, fatigued, emotionally drained, and unable to meet demands at work, especially if they are extended over time.

Depersonalization (Cynicism) is manifested through a constant negative attitude about the value and significance of occupation³.

Low Personal Accomplishment consists in doubts about professional efficacy and lack of awareness about personal competence⁴.

Medical students can be affected by burnout. They may experience exhaustion in the attempt to reach good results (with negative emotions towards their tasks), cynicism (a negative attitude towards the meaning and usefulness of studies), and feelings of incompetence or ineffectiveness in performing various academic obligations.

Frequently, students go through episodes of severe stress when increased cognitive demands are associated with time pressure, this potentially turning into burnout syndrome. In students burnout is associated with

Literature

One study¹¹ analyzed the connection between student engagement and burnout, and observed four types of academic typologies:

- engaged students (44%) tend to be more involved in academic activities and have lower levels of burn out. This type is more frequent at the beginning of the academic cycle;
- engaged-exhausted students (30%) exhibit clear characteristics of exhaustion and burnout.
- inefficacious students (19%) have heightened feelings of academic inadequacy;
- burnout students (7%) report higher levels of cynicism, lower academic involvement and higher feelings of inadequacy. The last two types are characteristic of students intensively studying for a longer period of time.

physical and psychological distress, lower academic performance, dropout and suicidal ideation^{5,6}.

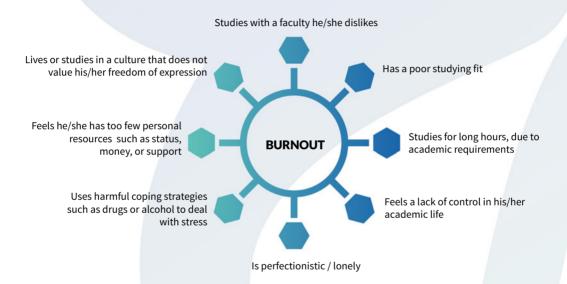
Prevalence

Burnout syndrome affects more than half of medical students and healthcare professionals⁷. One in two medical students reported high self-perceived stress, with women exhibiting higher scores compared to men, at the beginning and middle of the academic year, and both genders displaying a gradual increase in stress levels from August to the following months⁸. Also, burnout seems a cumulative phenomenon, with a higher prevalence of burnout in clinical years^{9,10}.

General risk factors predisposing to burnout:

| INDIVIDUAL | SOCIO-CULTURAL |
|---|---|
| Perfectionism (e.g. type A personality) | Stressful working climate (e.g. centered on success, but without offering support) |
| "Good Samaritan" syndrome = entering (intentionally or not) into the role of permanent over-involvement | Conflicts between professional effort and social recognition (especially among men) |
| Rich history of confrontations followed up by exhaustion | Conflicts between career and family demands (especially among women) |
| Personality disorders | Economic difficulties |
| Vulnerability to failure/loss | Differences of mentality in the working environment |
| Personal history (e.g. separation anxiety) or family history (e.g. cultivation of a sense of duty, regardless of costs) | "Stress-illness" stereotype (stress, considered as unavoidable for some professions) |
| Substance abuse | "Age-illness" stereotype (old age is irremediably associated with exhaustion and illness) |

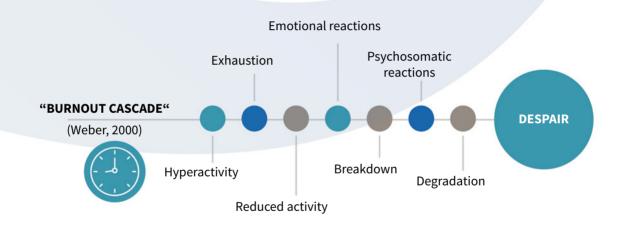
The risk of emotional exhaustion and burnout increases for any young adult in academic environment who:



Specific risk factors in the academic environment



II. BURNOUT AS A GRADUAL PROCESS (IT DEVELOPS IN TIME)12





1. Phases of Burnout



Clinical case

M.C. is a 5th year Dentistry student who daily attends classes, studies every evening and has been working in the last three years at a dentist's office, for 5 days a week and averagely 8-10 hours a day.

She works and lives in the capital, the place where she grew up. She has had little social support in the last year, because of the distance from her fiancée (who lives in another town), the little time she has for meeting new people, and the poor relationships with her father. She is a rather introverted sensitive person, with a high need for approval. She is perfectionistic, because of her early experiences with her father, whom she perceives as critical.

As she is currently in her last year of college, her study workload has increased, so she needs to do additional research to get her Bachelor Degree. On top of that, she has to see more patients than before, so she now works longer hours at the dentist's office.

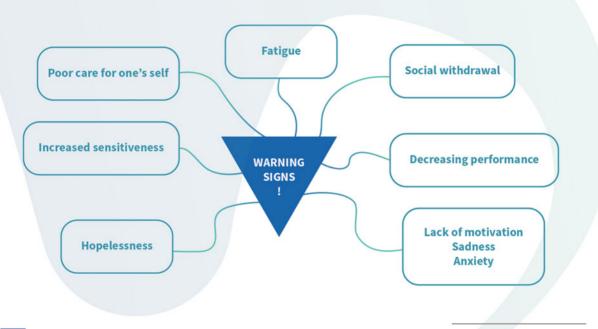
Gradually, she started feeling a lot of pressure, trying to keep up with her college and work responsibilities. She gradually has felt overwhelmed and anxious, and became more irritable and socially isolated.

She started having trouble sleeping and lost her appetite. In time, she became apathetic and depressed, with feelings of helplessness and lack of energy. She had trouble concentrating in school and started forgetting things at work.





III. WARNING SIGNS OF BURNOUT



1. You're feeling fatigued all the time

There's a difference between being tired and fatigued. Both are responses to stressors, but tiredness goes away with the right amount of rest and recuperation, while fatigue is more enduring. When you're emotionally exhausted, it can feel like no amount of food, sleep or relaxation can make you feel better.

2. You're not taking care of yourself

These changes are often the first and most prominent signs of emotional burnout. People who feel emotionally exhausted often experience loss of appetite and lack of restful sleep¹³. In severe cases, some people even feel so drained that they stop showering, exercising, or brushing their teeth.

3. Your performance is decreasing

Burnout syndrome has a negative correlation with the ability to solve problems and with cognitive performance¹⁴. Because emotional burnout is a lengthy process, it can be difficult to tell exactly when your performance began to deteriorate. Looking at it in the long run can help you determine whether or not you are just affected by a temporary blockage, or if you are already experiencing emotional exhaustion.

4. You became too sensitive

When you neglect your mental health and fail to meet your emotional needs, your mind struggles to work as well as it once did. This may manifest as a lack of emotional control, such as behaving aggressively and impulsive. When you are emotionally exhausted, you are more prone to feel overwhelmed, and you'll become more sensitive and irritated. You may feel unappreciated, experience frustration, pessimism,



guilt and anger, as well as feelings of emptiness and dread. This may result in inappropriate / insensitive behavior.

5. You're feeling down

Lack of motivation is to be expected even in the early stages of burnout¹⁵. Over time, symptoms of anxiety and depression (lack of energy, lack of enthusiasm, frustration, boredom, apathy and avoidant behavior) may develop, if the problem is left untreated.

6. Your social life is kind of absent

Being emotionally burned out may cause you to have no energy or desire to spend time with your loved ones. You may tend to withdraw from others and replace human contact by consuming alcohol, smoking and drug consumption.

Researchers have found out that social withdrawal and isolation are among the worst consequences of poor mental health, causing a lot of people to suffer alone in silence¹⁶.

7. You feel hopeless

Emotional burnout usually gives way to feelings of despair, emptiness and detachment. You spend all of your time and energy concentrating over the things you need to do, and end up leaving none of it for yourself and your well-being. You start to feel unfulfilled by the things that used to give your life meaning, and you find it hard to feel any sort of pleasure at all anymore, because you fear that nothing you do will matter in the end.



Does any of these sound familiar to you?

How many signs do you relate to?

What do you think might be their cause?

If you answered "yes" "a lot" and "I don't know" to previous questions, don't be discouraged. Self-awareness is the key! Once you've recognized the signs of emotional burnout, try to find out what could be the causes and imagine a plan to address them.

IV. CONSEQUENCES ON MENTAL HEALTH AND WELL-BEING

1. Anxiety

In normal circumstances, anxiety is a necessary emotion, which can represent an adaptive response to stress.

In long-term stressed individuals, anxiety could represent both a premise and a consequence of burnout. In this case, the individual may experience multiple symptoms:

- somatic: palpitations, trouble breathing, tremor of the extremities or generalized tremor, sweating, cold skin, dry mouth, dizziness, nausea, muscle tension;
- psychological: intense fear, feelings of dread and threat, psychological terror, irritability, panic, difficulties in concentrating, insomnia





2. Depression

Is defined as a mood disorder, characterized by persistent feelings of sadness, emptiness, and hopelessness. It permeates not only school or work life, but also social life, and enjoyment of own hobbies and interests.

Symptoms of depression:

- somatic: loss / increase of appetite, restlessness or passivity;
- psychological: feelings of sadness, loss of pleasure, hopelessness, thoughts of suicide, uselessness, incapacity, insomnia, difficulties in concentrating and memorizing.



V. (SELF-) EVALUATION OF BURNOUT

If you think you might have burnout, several instruments can be employed to assess your status.

1. Maslach Burnout Inventory - Student Survey

The MBI, developed by Cristina Maslach and Susan Jackson, resulted from qualitative research and includes the three burnout dimensions. The Student version of this scale represents a validated instrument for assessing burnout in students¹⁷.

Scales:

- Exhaustion measures feelings of being overextended and exhausted by one's studies.
- Cynicism measures the indifference or distant attitude towards studies.
- **Professional efficacy** measures satisfaction with past and present accomplishments, and it explicitly assesses an individual's expectations of continued effectiveness at school.

The test comprises of 16 statements about university-related feelings. The respondent is asked how often he/ she felt this way.



Sample items:

1. I feel emotionally drained by my studies.

A few A few A few Once a Once a **Every day** Never times a vear month times a times a week or less or less month week

2. In my opinion, I am a good student.

A few Once a A few A few Once a Never times a vear month times a times a **Every day** week or less or less week month

3. I doubt the significance of my studies.

A few A few A few Once a Once a month times a times a **Every day** Never times a year week or less or less month week

MBI-GS, Copyright © 1996 Wilmar B. Schaufeli, Michael P. Leiter, Christina Maslach & Susan E. Jackson. All rights reserved in all media. Published by Mind Garden, Inc. www.mindgarden.com

2. Medical Student Well-Being Index18

This instrument has been developed by Mayo Clinic and it is available <u>here</u>.

For medical students, the MSWBI score correlates with quality of life, fatigue, recent suicidal ideation, burnout, the likelihood of seriously considering dropping out of medical school, and recent suicidal ideation.

3. Other instruments for the assessment of Academic Burnout

Perceived Stress Scale

Perceived stress is often increased at individuals who will develop burnout. A reliable measure of stress load is Perceived Stress Scale, developed by Cohen et al.¹⁹

Kessler 10 item scale (K10)

The Kessler Psychological Distress Scale $(K10)^{20}$ is a simple measure of psychological distress that may link it to the likelihood of developing burnout and / or a mental disorder. The K10 scale comprises 10 questions about emotional states, each with a five-level response scale.



VI. RISK AND PROTECTIVE FACTORS FOR BURNOUT IN THE ACADEMIC ENVIRONMENT²¹⁻²²

1. Risk factors

IRF 1 - High self-demand and competitiveness, perfectionism, workaholism

"I feel that I must perform in every subject!"

IRF 2 - Low tolerance to frustration; Vulnerability to failure

"If I fail, even if it is one time, I am nervous. I lose control in small matters."

IRF 3 - Low self-perceived efficacy

"I cannot do it, I am not able to learn this"

Individual (IRF)

IRF 4 - Poor / inefficient coping strategies;

Suppression of emotional expressions of unwanted thoughts.

"I am afraid, I will not go to the exam", "I don't want to face my colleagues". "This is awful, it can't be", "I am just thinking over and over at night especially, about my failure, about what I will do, what will happen to me, what my parents will say..."

IRF 5 - Low sense of control and autonomy

"I am losing control over these", "I am unable to this by myself", "I need someone to help me study", "I need someone to help me get to the exam!"

| | SRF1 - Social isolation Students in Medicine study a lot more than their peers and they do not socialize so often. They may stay for a long time separated from their families. |
|----------------------|--|
| Social (SRF) | SRF2 - Social vulnerability Medical students may perceive low social and familial support, as they thrive to help their families of origin |
| | SRF3 - Insufficient development of professional identity Lack of time management skills may lead to dissatisfaction with social life and academic experience. |
| | ORF1 - High academic demands; academic overload / vast curriculum; curricular rigidity Students in Medicine have a long study duration, which leads to a persistent academic overload. Students are evaluated mainly based on their accumulated knowledge than on their abilities. They may lack training in being assertive and in developing and manifesting their emotions. |
| Organizational (ORF) | ORF2 - Highly competitive environment Students often feel pressured by colleagues and / or academic establishment. |
| | ORF3 - Daily schedule (courses, hospital practice) Students often get higher responsibilities than their abilities. They need to commute between daily schedule, examinations, and other duties ²³ . |



2. Protective factors

IPF 1- Psychological capital

It refers to four resources:

- self-efficacy ("I have confidence to face challenges and difficult tasks")
- optimism ("I can make positive attributions about present and future")
- hope ("I can visualize and persevere in the goals, as well as redirect the objectives when necessary to achieve success")
- resilience ("I will recover and even emerge stronger").

Individual (IPF)

IPF 2 - Emotional regulation strategies for adaptive behavior

In relation with academic life, three strategies have beneficial effects on emotions, via modification or elimination of stressors:

- reappraisal:
- "I can give a sense and meaning both to failure and to success"
- problem solving:
- "I can make conscious attempts to change a stressful situation or to contain its consequences";
- acceptance:
- "I can make positive interpretations, or generate better perspectives on a stressful situation as a way to reduce stress"

IPF 3 - Locus of control

Locus of control is a psychological concept that in education refers to how students believe they have control over the causes of academic success or failure in school. If a student has got a poor grade, he /she may explain it through the specific locus of control he / she has.

Internal: "This means I did not study enough."

External: "This was too hard. I didn't have any luck!"

IPF 4 - Positive reinforcement

Positive reinforcement is a psychological concept that refers to the addition of a stimulus (reward) following a certain behavior in order to teach or strengthen it. "I will reward myself if get a good mark" "The teacher will give us a reward if we all pass the test, so I am studying harder".

Individual (IPF)

IPF 5 - Humor

Some platforms of social media, despite being educational, may display information in a friendly, easy-to-use format. This in turn can help users to easily find health professionals or peers, when in need, and to offer credible support and reassurance to those suffering in silence. Advice or testimonials often use the sense of humor in this type of media.

IPF 6 - Healthy lifestyle

A healthy diet: Physical activity: at least 1 hour of walking a day. Stop smoking or set a maximum number of cigarettes per day. Stop alcohol consumption or set a reasonable amount of alcohol per day (1 unit for women and 2 units for men) (1 unit is 150 ml of wine, 330 ml of beer and 50ml of spirit).

IPF 7 - Recovery strategies



| SPF1 - Social skills |
|---|
| SPF2 - Broad and strong support networks |
| SPF3 - Participation in extracurricular activities Example: A student who: - evaluates him- / herself realistically; - expresses expectations; - gets but also provides social support; - participates in volunteer / extracurricular activities. |
| OPF1: Good educational climate OPF2: Teacher training in wellness and prevention OPF3: Adequate teacher / student ratio OPF4: Educational program evaluation system OPF5: Early screening of students for burnout OPF6: Coaching opportunities |
| OPF7: Short inter-campus travel times |
| |



REFERENCES

- **1.** Maslach, C. (1993). Burnout: a multidimensional perspective. In Schaufeli, W.B., Maslach, C., Marek, T. (Eds.) Professional burnout: recent developments in theory and research. Taylor and Francis: New York, pp.20–21.
- **2.** World Health Organization (2018). International Classification of Diseases for mortality and morbidity statistics (11th Revision). Retrieved from https://icd.who.int/browse11/l-m/en, on May 25th,2021.
- 3. Maslach, C., Jackson, S.E., Leiter, M.P. (1996). Maslach Burnout Inventory (3rd Ed.). Palo Alto, CA: Consulting Psychologists Press.
- 4. Maslach, C., Goldberg, J. (1998). Prevention of burnout: new perspectives. Applied and Preventive Psychology 7: 63-74.
- **5.** Mian, A., Kim, D., Chen, D., Ward, W.L. (2018). Medical student and resident burnout: A review of causes, effects, and prevention. Journal of Family Medicine and Disease Prevention 4: 094.
- **6.** Marôco, J., Assunção, H., Harju-Luukkainen, H., Lin, S. W., Sit, P.S., Cheung, K.C., Maloa, B., Ilic, I.S., Smith, T.J., Campos, J. (2020). Predictors of academic efficacy and dropout intention in university students: Can engagement suppress burnout? PloS One, 15(10): e0239816.
- 7. Bitran, M., Zúñiga, D., Pedrals, N., Echeverría, G., Vergara, C., Rigotti, A., Puschel, K. (2019). Burnout en la formación de profesionales de la salud en Chile: Factores de protección y riesgo, y propuestas de abordaje desde la perspectiva de los educadores. Revista Medica de Chile 147 (4): 510-517.



- **8.** Jordan, R.K., Shah, S.S., Desai, H., Tripi, J., Mitchell, A., Worth, R.G. (2020). Variation of stress levels, burnout, and resilience throughout the academic year in first-year medical students. PLoS One 15(10): e0240667.
- **9.** Galán, F., Sanmartín, A., Polo, J., Giner, L. (2011). Burnout risk in medical students in Spain using the Maslach Burnout Inventory-Student Survey. International Archives of Occupational and Environmental Health, 84(4): 453–459.
- **10.** Nteveros, A., Kyprianou, M., Artemiadis, A., Charalampous, A., Christoforaki, K., Cheilidis, S., Germanos, O., Bargiotas, P., Chatzittofis, A., Zis, P. (2020). Burnout among medical students in Cyprus: A cross-sectional study, PLoS One, 15(11): e0241335.
- **11.** Salmela-Aro, K., Read, S. (2017). Study engagement and burnout profiles among Finnish higher education students. Burnout Research 7: 21–28.
- 12. Weber, A., Jaekel-Reinhard, A. (2000). Burnout syndrome: a disease of modern societies, Occupational Medicine, 50: 512-517.
- **13.** Maslach, C. Leiter, M.P. (2016). Understanding the burnout experience: recent research and its implications for psychiatry. World Psychiatry, 15: 103-111.
- **14.** May, R.W., Bauer, K.N., Fincham, F.D. (2015). School burnout: Diminished academic and cognitive performance, Learning and Individual Differences, 42: 126–131.
- 15. Bianchi, R, Schonfeld S, Laurent E. (2015). Burnout-depression overlap: a review. Clinical Psychology Review, 36: 28-41.
- 16. Mushtaq, R., Shoib, S., Shah, T., Mushtaq, S. (2014). Relationship between loneliness, psychiatric disorders and physical health? A



review on the psychological aspects of loneliness. Journal of Clinical and Diagnostic Research 8(9): WE01-WE4.

- **17.** Shi, Y., Gugiu, P.C., Crowe, R.P., Way, D.P. (2019). A Rasch analysis validation of the Maslach burnout inventory–student survey with preclinical medical students. Teaching and Learning in Medicine 31(2): 154–169.
- **18.** Dyrbye, L.N., Schwartz, A., Downing, S.M., Szydlo, D.W., Sloan, J., Shanafelt, T.D. (2011). Efficacy of a brief screening tool to identify medical students in distress. Academic Medicine 86: 907-914.
- **19.** Cohen, S., Kamarck, T., Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health Social Behavior 24(4): 385-396.
- **20.** Kessler, R.C., Barker, P.R., Colpe, L.J., Epstein, J.F., Gfroerer, J.C., Hiripi, E., et al. (2003). Screening for serious mental illness in the general population. Archives of General Psychiatry 60(2): 184-189.
- **21.** Aldao, A., Nolen-Hoeksema, S., Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. Clinical Psychology Review, 30 (2): 217-237.
- **22.** Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. Journal of Applied Social Psychology, 32(4): 665-683.

CHAPTER 2

BURNOUT PREVENTION

Can burnout syndrome in students be prevented?

The answer is YES!

The practical ways to prevent burnout syndrome depend on:

- when they are applied;
- whom are they addressed to;
- their specific goal.

Prevention can be viewed from different perspectives:

- the public health framework (biomedical model)1:
- the individual's perspective.





I. PRIMARY PREVENTION

Aim: to prevent a medical condition before it occurs. E.g.: provision of information on behavioral health risks, education, modifying unhealthy behaviors.

II. SECONDARY PREVENTION

Aim: early detection of signs and symptoms to reduce the impact of a medical condition that has already occurred. E.g.: screening programs, identifying the problem and slowing its progress.

III. TERTIARY PREVENTION

Aim: to reduce the impact and consequences of a chronic medical condition and to help the person to manage them. E.g.: interventions to alleviate the symptoms.

Taking into consideration the evolution of burnout, there is an approach on the time axis:



The framework that takes into account the target population (based on Gordon's psychosocial model of prevention)^{2,3}:

Universal prevention:

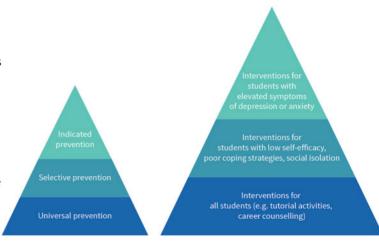
Includes strategies that can be offered to the entire population that has not been identified on the basis of individual risk. Everyone in that group can benefit from these interventions.

Selective prevention:

Includes strategies that are targeted to the population subgroup whose risk of developing burnout symptoms is higher than average.

Indicated prevention:

Includes strategies that target highrisk individuals who are identified as having minimal but detectable signs or symptoms of burnout, but who are currently asymptomatic.





I. PRIMARY PREVENTION

What can you do?

First step is self-analysis (self-observation)

Take a few minutes to analyze yourself and better understand how you think and feel. This is important because burnout syndrome is not caused exclusively by the stressful academic environment, but especially by the individual's response to that environment.

A better understanding of your personality, needs and motivations will help you:

- to be aware if and why you may be at risk for burnout;
- changing the way you cope with stress.

Do a more in-depth search of your personality traits. As an aid, you may read again the previous pages in which the triggers of academic stress are described. You can identify whether some of these features (e.g., perfectionism,







workaholic pattern, frailty in confronting failure⁴) predispose you to burnout. Also, you may understand better the connection between your characteristics and behaviors which may lead you to burnout. For example, consider how high desire to be appreciated can generate extra work and overload.

Also, find the particularities of your academic environment (the organizational factors such as academic overload, time constraints, exams, competition), which may favor the onset of burnout⁵. Look for specific reasons why these factors may become risky for you. In this regard, focus on:

- identifying family influences (how early family experiences may have shaped your unconscious expectations about the study involvement and especially about academic achievements);
- adjusting the standards of unrealistic expectations;
- evaluating the interaction between your ideals and you current studying conditions.

Second step is the recognition of the burnout risk⁶

This consists of the correct assessment of the aspects that increase / decrease the risk of burnout.

Why is that important?

Because people may have errors and cognitive biases concerning their own burnout risk evaluation. This may lead to the underestimation of prevention, either because they do not realize the risks, or because they consider themselves invulnerable.

Here are some examples of errors and cognitive biases to pay attention to:

- underestimation of own vulnerability (e.g., a young, idealistic student);
- denying engaging in risky behaviors that could lead to burnout (e.g., over-involvement in too many different activities);
- the persistence of risky behaviors, although the perception of burnout risk is accurate.

Cognitive biases:

- under-accumulation bias: not perceiving burnout as a gradual, cumulative process (i.e. perceiving different stressful situations as isolated, while in fact their negative effects add up, leading to burnout);
- optimism bias (unrealistic optimism): the belief that bad things happen only to others;
- considering that burnout occurs only in "weak people", and not assuming such a life position;



• considering burnout as a "duty of honor" (in some professions such as Medicine or Humanities, the norm is dedication and the spirit of sacrifice).

If you take into account aspects such as those mentioned above, you will be tempted to:

- ignore the warning signs of burnout;
- hide some signs and symptoms;
- continue to study and work harder, to get over-involved in several tasks, even if the burnout has set in;
- deny your problems;
- avoid asking for help.

IMPORTANT:

Recognize your time and energy limits! Don't be afraid to ask for help!

Asking for help is not a sign of weakness, it means that you are able to realize the risk and properly evaluate your limits!



II. SECONDARY PREVENTION

Burnout occurs in the context of a dysfunctional relationship between the individual and the academic environment. Consequently, there are two directions in which action can be taken: management of individual resources and organizational support.

1. Management of individual resources

Can be achieved through stress reduction and increase the ability to recharge.

To a better understanding, take a look at the Conservation of Resources (CoR) theory^{7,8,11}. This is one of the leading theories of stress, specifically in the field of burnout⁹. Both resource losses and resources gains have certain roles in predicting stress outcomes¹⁰.

Principle 1: Resource loss is more salient (powerful) than resource gain.

Principle 2: Resources must be invested in order to gain resources or to recover from resources loss.

Corollary 1: Individuals with higher resources will be set up for gains in resources. Similarly, individuals with fewer resources are more likely to experience resource losses.



Corollary 2: Initial resource loss will lead to resource loss in the future.

Corollary 3: Initial resource gains will lead to resource gains in the future.

Corollary 4: A lack of resources will invariably lead to defensive attempts to conserve the remaining resources.

Stress reduction

Time management. Here are some tips: Create a time audit:

- measure the time you spend for different activities and tasks during a typical week;
- use a time tracking application.

Plan, get organized and (re) structure your program:

- identify the priorities (e.g. do what has a highest priority, put the most unpleasant task first);
- limit the "secondary", less important, activities; eliminate non-priorities;
- use a "to-do list" [use "closed to-do list" (which is a limited list with things that have to be done in a certain period of time) and not an "open to-do list" (in which many tasks are anytime added)];
- avoid procrastination (postponing things will not solve them, instead the tasks will only accumulate)



A simplified and often used way of time management is represented by what is called the Fisenhower matrix¹².

| | URGENT | NOT URGENT | |
|------------------|--|--|--|
| | Do first: | Decide when: | |
| IMPORTANT | A study plan Deadlines Exams Submitting a project Homework | Reading lectures notes Recreation Invest in relationships building Exercising | |
| NOT IMPORTANT | Delegate (if possible): Some / Unimportant meetings | Social media Aimless internet surfing Excessive online gaming Binge TV watching Gossip | |

The Eisenhower matrix, adapted for medical and allied health profession students



Additionally,

- set a time constraint for your tasks;
- limit study hours per day;
- be more task-oriented13;
- avoid interruptions and minimize distractors (use screen time regulatory apps that block access during scheduled study periods)¹⁴;
- set breaks in your daily routine;
- rethink the "to do list" ("I must do" versus "I do, if I can");
- give yourself "personal time" to do something you enjoy or to relax, or even "to do nothing".

Stress reduction (to achieve IPF2):

- take calming breaths or do breathing exercises;
- take a walk;
- meditate;
- exercise regularly;
- · listen to music;
- engage in extracurricular activities;
- perform a hobby;
- · meet friends;
- ask for support, if needed.



The 4 A's of stress management^{15,16}:

- is based on the decision-making model;
- is associated with the all five domains of student well-being: academic, cognitive, emotional, physical and social.

| | COMPONENT | WHAT DOES IT MEAN? | HOW TO DO IT? |
|---|---------------|--|---|
| A | Alter stress | Removing the source of stress by changing something | Organize, plan, make a schedule. Deal with problems, do not avoid them. Communicate openly and honestly. Express your feelings. Be willing to compromise. |
| A | Avoid stress | Removing the stressful situation or figuring out how not to get there in the first place | Walk away, let go, delegate, withdraw. Know your limits. Learn how to say "no" Don't take more than you can handle. Prioritize a to-do list. |
| A | Accept stress | Equipping oneself physically and mentally for stress | Accept the things you can't change. Don't try to control the uncontrollable. Practice positive self-talk. Talk with others. Learn to forgive. |

| | Adapt and build resistance (Ab) | Increasing the capacity to tolerate stress | physically: through proper diet, regular exercise, and relaxation; mentally: through positive affirmation, setting clear goals and priorities; socially: by building and maintaining support systems, relationships, and clear communication. spiritually: through meditation, prayer, faith and commitment. |
|---|--|---|---|
| A | Adapt and change (Ac) | Changing the way a person perceives the situation | - changing unrealistic expectations and irrational beliefs (e.g., "I should succeed at everything I try", "I must be perfect", "I must take care of everyone's needs"); - building self-esteem and cultivating a positive attitude ("It's difficult, but I can do it"). |
| | | | Reframe the problems (look at them from a different point of view); |
| | | | Try to view stressful situations from a more positive perspective. |
| | | | Adjust your standards/ Set reasonable standards for yourself. |
| | | | Stop setting yourself up for failure by demanding perfectionism. |
| | | | Look at the big picture (if it won't matter, let it go). |

Self-appreciation (to achieve IPF4):

- create the habit of celebrating achievements;
- praise yourself even for small accomplishments;



- set reasonable goals and small rewards (completing a task can warrant a small reward such as a piece of chocolate, or a short phone call to a friend)¹²;
- be confident about yourself;
- acknowledge your progress (focus on it, and not just on the final goal).

Healthy lifestyle (to achieve IPF6):

- exercise, go to the gym, ride the bicycle;
- eat healthy;
- sleep 7-8 hours per night.

Communicate with your colleagues (to achieve SPF1):

- discuss academic issues;
- ask for their help if you need it in practical matters;
- study with other colleagues (it has few benefits: sharing the experience of studying may be more enjoyable, it is less time-consuming to get some answers and explanations, discussing the concepts may be challenging and improves long-term retention)¹²;
- participate in group problem-solving.



Increase the ability to recharge (to achieve IPF7):

For this stage to be effective it is important to be able to relieve stress (<u>see section II.1</u>) You cannot fully benefit from recharging, if you are always preoccupied with problems, if you continue to think and rethink on the issues that bother you.

Here are some practical ways to recharge:

Try to create boundaries between professional (academic) and personal life. These are some things which may help you:

- comply with the established study schedule (don't waste your time, try to fit into a time slot dedicated to the study, so that you can do something else afterwards);
- mark the completion of the time allotted to the study (put books in order, tidy up your desk, take some fresh air, listen to relaxing music, do some stretching exercises).

Create a routine of activities outside the faculty (extracurricular activities) (e.g., walking, going to gym, riding a bike, meet your friends)

Find a hobby or cultivate the existing ones:

Due to a busy schedule and academic overload during university studies, many students say they don't have time to do what they enjoyed to do before; they spend less and less time or even give up reading literature, doing sports, going to the movies or on trips.



Keep in mind that even if you need to study hard to become a professional, your body and mind needs active breaks. Make a schedule and do invest time in your hobbies, personal interests and creative activities.

Rest and relax:

- schedule breaks during your studying activity;
- refresh and recover during the weekend;
- plan "nothing to do" time;

- take days off;
- dedicate time for fun.

Have and maintain a healthy lifestyle

- **Food:** regular meals, balanced diet (eat vegetables, fruits, whole grain, lean meat, fish, avoid fast food, chips, added salt, too much sugar or sweets);
- **Sleep** (7-8 hours per night; keep in mind that lack of sleep negatively influences performance); avoid or limit sleepless nights; take once in a while a power nap.
- **Physical activity:** go to the gym; practice regular exercise at home, make it a daily routine); do activities that require body movements (if you are less active)¹⁴;

Create and "keep alive" a support network: spend time with friends, family, significant people in your life.



2. Organizational activities

In an organizational context, the Job Demands-Resources (JD-R) Model¹⁷ highlights that employee health and well-being result from a balance between positive (resources) and negative (demands) job characteristics¹⁸. This model is also applicable in academic environment as Study Demands-Resources (SD-R) framework¹⁹ and highlights the effects of studying on the students' well-being and health.

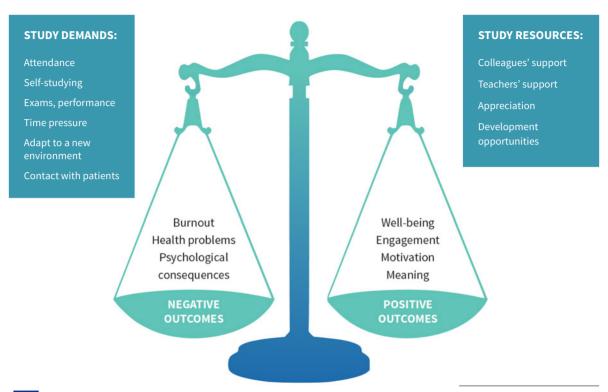
Several institutional modalities and measures that can help reduce the burnout risk are:

Peer support systems (to achieve SPF2):

Give and receive help from colleagues regarding:

- the studying process (the most effective way to learn is together);
- other practical aspects related to the university and campus facilities (such as book lending, venues, labs, students benefits);
- student-led mentorship programs (undergraduates may benefit on a formal basis from help and advice from senior students);
- students societies can offer informational and practical support related to the didactic activity and about sources where help can be obtained. They can also carry out training in different fields, organize extracurricular activities, volunteer activities, or students' conferences.





Career counseling and orientation centers (to address SRF3):

Provide activity areas such as:

- educational counseling (addressing one's own learning style, adjustment to learning, coping with exam anxiety, time management);
- psychological counseling (personalized support in overcoming challenging situations during university studies, e.g., conflict management, emotional difficulties, academic failure);
- career / professional counseling: planning the career path of students and / or graduates in order to identify professional interests and specific skills, choosing a specialty, preparing for residency, assistance in writing a CV, a portfolio, a motivation letter, preparation for a job interview, support in making a career decision.

Tutoring programs/ activity (to address ORF1, OPF1):

May help students to:

- adjust under optimal conditions to the requirements corresponding to each year of studies;
- facilitate their access to university resources;
- get support in reaching administrative deadlines;
- get explanations about the didactic activity and examinations;
- receive a more flexible exam schedule (with attention paid to the free interval between exams, in order to avoid overloading);



- get basic information about special circumstances the students may have to cope with (absences, interruption of studies, etc.);
- get advice in order to solve personal problems related to student life (e.g., health problems related to the learning process);
- get counseling about the social, cultural and sporting opportunities that can be associated with learning activities.

They may also:

- organize meetings with practitioners of the professions relevant to the future specialization of students;
- orient students regarding the opportunities for further studies at the post-graduate level;
- counsel students for CV development, scholarship or job interviews, and professional career opportunities.

Regular surveys (to achieve OPF5):

Can offer feedback from students regarding perceived academic stress, burnout symptoms, satisfaction about the teaching process, and suggestions for improvement.



A culture of caring (to achieve IPF1, IPF4, IPF7):

Can be created and sustained through internal regulations, University charts and decisions from administrative staff, after consulting the representatives of the students' boards. Ideally, this culture of caring can provide a sense of security, assertiveness and mutual learning inside and beyond the university environment.

Social activities (to achieve SPF2, SPF3):

Recreational activities, charity events that could ensure an increase in the perceived sense of group cohesion, thereby preventing stress and burnout.

3. Protective laws and regulations

Medical students should be aware about the protection framework that their employer is obliged to use, once they become physicians.

In this regard, article 151 of the Treaty on the Functioning of the European Union (TFEU) states that Member States should "work towards the promotion of employment and the improvement of working conditions". The European Union guidelines have been aimed at improving the prevention of work-related diseases by combating existing, new and emerging risks, including burnout. To this end, the European



Union urges member states to adopt national health and safety strategies that serve to address these new risks.

Council Directive 89/391/EEC of June 12th, 1989, regarding the introduction of measures to encourage improvements in the safety and health of workers at work, sets out the minimum requirements and fundamental principles governing work, such as the principle of prevention and risk assessment, together with the responsibilities of employers and employees. The Directive obliges employers in Europe to assess and address all workplace risks that could harm workers' safety and health. Thus, the employer has the duty "to ensure the safety and health of workers in every aspect related to work. The employer should take the necessary measures for the safety and health protection of workers, including prevention of occupational risks and provision of information and training, as well as provision of the necessary organization and means" (arts. 5 and 6).

The Framework Agreements on Work-related Stress (2004) and on Harassment and Violence at Work (2007) (signed by European social partners) represents a commitment to the development and application of their content at the national level.



The Communication from the European Commission of January 1st, 2017 "Safer and Healthier Work for All -Modernisation of the EU Occupational Safety and Health Legislation and Policy", has established the guidelines and principles of action of the States on occupational health and safety policies for the coming years. The result has been the publication in 2018 of "Healthy workers, thriving companies - a practical guide to wellbeing at work".



REFERENCES

- 1. Caplan, G. (1964). Principles of Prevention Psychiatry. Oxford: Basic Books;
- 2. Gordon, R. (1983). An operational classification of disease prevention. Public Health Reports. 98: 107-109.
- **3.** O'Connell, M.E., Boat, T., Warner, K.E. (Eds.) (2009). Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities. National Research Council (US) and Institute of Medicine (US) Committee on the Prevention of Mental Disorders and Substance Abuse Among Children, Youth, and Young Adults: Research Advances and Promising Interventions; Washington (DC): National Academies Press (US).
- **4.** Bitran, M., Zúñiga, D., Pedrals, N., Echeverría, G., Vergara, C., Rigotti, A., Puschel, K. (2019). Burnout en la formación de profesionales de la salud en Chile: Factores de protección y riesgo, y propuestas de abordaje desde la perspectiva de los educadores. Rev Med Chil.147(4):510-517. Spanish.
- **5.** Dyrbye, L.N., Thomas, M.R., Shanafelt, T.D. (2006). Systematic review of depression, and other indicators of psychological distress among U.S. and Canadian medical students, Academic Medicine, 81 (4):354-373.
- 6. Maslach, C., Goldberg, J. (1998). Prevention of burnout: New perspectives. Applied & Preventive Psychology, 7: 63-74.
- 7. Hobfoll, S. (1989). Conservation of Resources. A new attempt at conceptualizing stress. American Psychologist. 44 (3): 513–524.
- 8. Halbesleben, J.R., Harvey, J., Bolino, M.C. (2009). A conservation of resources view of the relationship between work engagement



- and work interference with family. Journal of Applied Psychology. 94 (6): 1452-1465.
- **9.** Hobfoll, S. E. (2011). Conservation of resources theory: Its implication for stress, health, and resilience. In S. Folkman (Ed.), Oxford library of psychology. The Oxford handbook of stress, health, and coping (pp.127–147). Oxford: Oxford University Press.
- **10.** Hobfoll, S. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. Applied Psychology 50 (2): 337–421.
- **11.** Hobfoll, S.E., Halbesleben, J.R., Neveu, J.-P., Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. Annual Review of Organizational Psychology and Organizational Behavior 5: 103–128.
- **12.** Pluta, A., Wójcik, G.P. (2015). Research on time–management skills of employees in the process of creating value for the customer. International Journal of Business Performance Management 16 (2-3): 246-261.
- **13.** Usán Supervía, P., Salavera Bordás, C. (2020). Burnout, goal orientation and academic performance in adolescent students. International Journal of Environmental Research and Public Health 17: 6507.
- **14.** Shreffler, J., Huecker, M., Martin, L., Sawning, S., The, S., Shaw, M.A., Mittel, O., Holthouser, A. (2020). Strategies to combat burnout during intense studying: Utilization of medical student feedback to alleviate burnout in preparation for a high stakes examination. Health Professions Education, 6(3).
- 15. Tubesing, D., Tubesing, N. (1983). Structured Exercises in Stress Management. Duluth, MN: Whole Person Press.



- 16. Need stress relief? Try the 4 A's Mayo Clinic. Accessed May 25th, 2021.
- **17.** Demerouti, E., Bakker, A.B., Nachreiner, F., Schaufeli, W.B. (2001). The job demands-resources model of burnout. Journal of Applied Psychology, 86, 499–512.
- **18.** Schaufeli, W.B., Taris, T. W. (2014). A critical review of the job demands-resources model: Implications for improving work and health. In G.F. Bauer, O. Hämmig (Eds.), Bridging occupational, organizational and public health: A transdisciplinary approach (pp.43–68). Springer Science + Business Media.
- **19.** Lesener, T., Pleiss, L.S., Gusy, B., Wolter, C. (2020). The Study Demands-Resources Framework: An Empirical Introduction. International Journal of Environmental Resources and Public Health 17(14), 5183.

CHAPTER 3

BURNOUT INTERVENTIONS

Learning how to prevent burnout is essential. However, in a number of cases you might become aware of burnout only after having the experience of going through it.

The following section of this manual focuses on presenting a series of activities which are effective in alleviating the symptoms of burnout and that you can either access on your own (I), or through your university (II).

I. INDIVIDUAL AND GROUP ACTIVITIES THAT ARE EFFECTIVE IN ALLEVIATING BURNOUT SYMPTOMS

Research has consistently offered empirical support for several categories of activities that are effective in alleviating the burnout symptoms, once you have become aware of their existence. These categories, as defined by Christina Maslach in 2017¹, are: (1) health and fitness, (2) relaxation strategies, (3) self-understanding activities, (4) development of coping skills, and (5) reaching out for social support. Quite often the programs developed with the aim to reduce burnout include several of these intervention categories, in order to enhance results.



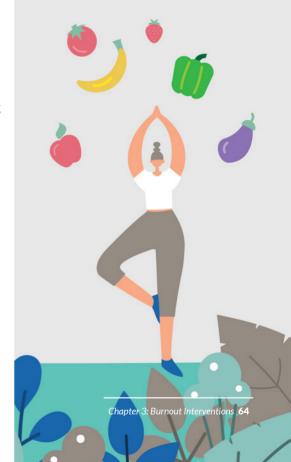
1. Health and fitness

Probably the most common recommendation is based on the knowledge that healthy people are more resilient and better able to handle any kind of stress experience, including burnout.

Therefore, the health and fitness recommendations include eating more nutritious food, losing excess weight, engaging in regular exercise, and quitting smoking.

In the following pages we include some information to get you started on:

- Healthy eating
- Exercise





Healthy eating

Definition

During chronic stress, hormones such as cortisol stimulate appetite, especially for foods high in fat and sugar. As these foods help tamp down many of the negative effects of the stress response, they are often used as "comfort foods." Preparing and eating well-balanced nutritious meals will help counterattack unhealthy eating patterns during times of stress.

How it works

You can start by learning about nutrition, the impact different categories of food have on stress levels, and the relationship between energy levels, mood and the diet. Then you can learn about your current eating habits and develop more healthy eating strategies. This could be achieved through goal setting and through self-monitoring of eating habits. Keeping a diary where you record, for each meal, the food category and the amount of food consumed can prove to be a useful tool. Be sure to also write down where and when you eat, the setting and the people with you at the time, and your feelings.

Eating is often tied to internal and external cues, and keeping track of this information may give you clues as to why you eat the way you do.

Other steps toward healthy eating include: making smart choices from all food groups, finding the right balance between eating and physical activity, eating frequent calm meals, planning ahead, maximizing the nutritional value of your calories, cutting back on fats and sugar, limiting sodium, attaining or maintaining your ideal weight, limiting caffeine and alcohol, and taking vitamins².

Resources for self-directed practice:

- the Dietary Guidelines for Americans;
- the dietary guidelines for your country.

Other resources:

- How can a nutritionist help with stress and diet;
- Nutrition and stress;
- Useful apps for tracking food intake: e.g., MyFitnessPal, Calorie Counter & Food Diary, MyPlate Calories Tracker.



Exercise

Exercise creates chemical releases of endorphins, dopamine, and serotonin, which can be helpful in stress release.

There are three different categories of exercise:

- endurance or aerobic: activities that increase your breathing and heart rate (e.g., running or cycling);
- strength and toning: exercises that build strong muscles and bones (e.g., weight training);
- balance, stretching and flexibility: exercises that give you more freedom of movement (e.g., yoga).

How it works

Regular aerobic exercise lowers sympathetic nervous system reactivity to physical and psychological stressors. Resistance exercise training significantly improves strength and reduces depressive symptoms. Reviews of yoga practice support its role as a self-soothing technique that can help modulate your stress response to both anxiety and depression.

The Mayo Clinic (2018) recommends getting at least 150 minutes a week of moderate aerobic activity — such as brisk walking or swimming —, or 75 minutes a week of vigorous aerobic activity — such as running or aerobic dancing. There is general agreement in the evidence that progressive muscle strengthening



exercises need to be done two to three nonconsecutive days per week and target all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms) to be effective.

Resources for self-directed practice:

- Exercise, stress and anxiety;
- Yoga for better mental health.



2. Relaxation strategies

A major approach to coping with stress is represented by relaxation. There are many techniques by which people can reduce high arousal and achieve a state of calmness.

These include muscular relaxation techniques, breathing techniques, meditation, biofeedback, but also naps and a longer night's sleep, hot baths, and massages.

Here are a few examples of relaxation techniques and practices:

- Progressive muscle-relaxation (PRM)
- Autogenic training (AT)
- Box breathing (BB) / Square breathing
- Visualization





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Progressive muscle-relaxation (PRM)

Definition

PRM is one of the mind-body practices that involves voluntary stretching and relaxation of all the muscle groups in the body. Basically, progressive relaxation training consists of learning to sequentially tense and then relax various groups of muscles throughout the body, while at the same time paying very close and careful attention to the feelings associated with both tension and relaxation³.

How it works

This practice is generally learned in 20 minutes daily sessions and it can take several weeks to master. You can learn PRM in individual or group psychotherapy sessions, or by yourself, from a book or listening to a guided audio / video practice.

Resources for self-directed practice:

- A guided practice on YouTube;
- You must relax <u>a self-help book</u> for learning to relax by Edmund Jacobson.
- Other resources



Autogenic training (AT)

Definition

Autogenic training is a technique of self-hypnosis developed by Dr Schultz, a German neurologist. The technique consists primarily in a series of six mental exercises used to elicit the bodily sensations of warmth and heaviness. This has the effect of producing the physiological changes of the relaxation response.

How it works

The technique involves the daily practice of sessions that last around 15 minutes, usually in the morning, at lunch time, and in the evening. AT can be learned individually or in groups.

Resources for self-directed practice:

Several universities offer free autogenic training MP3s:

- University of Melbourne: autogenic training MP3
- McMaster University: autogenic training MP3
- University of Kansas: <u>autogenic training MP3</u>
- Brigham Young University: <u>autogenic training MP3s</u>



Box breathing (BB) / Square breathing

Definition

Box breathing, also referred to as "square breathing", is a deep breathing technique that can help you slow down your breathing. It works by distracting your mind as you count to four, calming your nervous system, and decreasing stress in your body.

Box breathing is easy and quick to learn. Anyone can practice this technique and it's useful in stressful situations, when you want to re-center yourself or to improve concentration.

How it works

BB comprises four Steps:



Resources for self-directed practice: a brief video explaining the technique.

Other breathing techniques: Breath focus.



Visualization

Definition

Visualization is a method allowing and supporting the mental creation of images and activities, leading to relaxation. It is a traditional type of meditation, which includes designing a precise image of a particular space and environment where you feel relaxed, calm and free from any anxiety or pressure.

How it works

For instance, you can set up on a recent holiday you went on, a favorite place from your childhood or another dream place you have. The method can be independently conducted, but you can also use an app or another tool for additional support and guidance, such as additional sounds (e.g., ocean waves, forest sounds or any other relaxation music), or additional effects used to create the full picture you chose to focus on.

- A guided video;
- · Other resources.

3. Self-understanding

The basic argument for self-understanding is that if people have better knowledge of their personal strengths and weaknesses, in terms of personality, needs, and motives, then they will have a more realistic assessment about why they are experiencing burnout. Such self-knowledge can then be used to change their behavior and get more positive outcomes. There are many techniques that can be used to generate more self-insight, including counseling, mindfulness, and psychotherapy.

In the following pages we will briefly discuss a few methods widely available for exploring self-understanding:

- Individual psychotherapy
- Cognitive Behavioral Therapy (CBT) for burnout
- Mindfulness, Acceptance and Commitment Therapy for burnout
- Self development groups





Individual psychotherapy

Definition

Psychotherapy is a therapeutic approach for helping individuals with various mental health issues (e.g., burnout). It is also known as talk therapy. Research on psychotherapy has shown positive effects on reducing troubling symptoms⁴.

Psychotherapy is delivered by trained professionals (e.g., psychologists, psychiatrists, mental health providers), who guide the individual via discussion, to eliminate or control troubling symptoms (e.g., anxiety, depression), so that they can function and feel better. Therapy can be conducted at an individual or group level. Depending on one's mental health issues, psychotherapy can be short-term (a few sessions) or long-term (months or years). There are several types of psychotherapy such as CBT, interpersonal therapy, psychodynamic therapy, psychoanalysis, etc.

How it works

• If you feel that your stress and/or anxiety levels are preventing you from functioning clearly and maintaining a healthy work-life balance, then it is important to seek help immediately. Contact your counseling center and ask to see a psychologist.

- On your first appointment you will be asked to share information about your problem and how it affects your daily life. The trained professional will propose a treatment plan, including the frequency and duration of therapeutic sessions, as well as the expectations for developing an active, collaborative and confidential relationship.
- It is possible that your therapist may suggest additional types of therapies for maximizing personal wellness.
- Devoting time to performing the suggested strategies and being committed to following the treatment plan increases the possibility to get the most out of psychotherapy.

- Mayo's clinic overview of psychotherapy;
- Effectiveness of psychotherapy;
- <u>Understanding psychotherapy and how it works.</u>

Cognitive Behavioral Therapy (CBT) for burnout

Definition

Cognitive Behavioral Therapy refers to a class of interventions for treating individuals with mental health issues, such as anxiety, burnout, anger control problems, and general stress⁵. It has been studied extensively over the years and has produced strong evidence for supporting individuals⁶. It is based on the premise that mental health or psychological issues are maintained by negative cognitions (e.g., beliefs, thoughts), which can be treated by teaching certain strategies to individuals on how to change their cognitions and behaviors. Changing one's negative mindset can lead to changes in emotional distress and problematic behaviors.

How it works

- List the personal reasons potentially generating burnout, and prioritize them from the least contribution to burnout to the most contribution to burnout. For example:
 - completing homework;
 - doing grocery shopping;
 - meeting my partner for quality time;
 - dealing with my mother's health issues;
 - studying for exams and exam results;
 - balancing school and work.

- Your thoughts create emotions and behaviors. These could lead to intense stress and anxiety (emotions) and avoidance or other behaviors that are not helpful. As the diagram shows, they create a circle, where each of the three components affects the other two. However, the easiest to ameliorate would be your thoughts.
- You will need to record the negative thoughts that are connected to a burnout reason. Start first with the most stress-provoking reasons and then continue with the least-challenging ones. When considering the example listed above "studying for exams and exam results", we start recording any negatively related thoughts such as:
- Negative thoughts Emotions

 Behavior
- "For sure I will not finish my studying on time for exams."
- "I failed to get a good grade on my last exam, so this will happen again with the rest of my exams."
- "I may not be smart enough to get good grades and then finish my degree."
- "I am an imposter. I do not belong in medical school as I am failing to get good grades."

As you can see, the above negative statements lead to stress and burnout (emotions) and unproductive

behaviors (e.g., avoiding studying or quitting or panic attacks). You may not be always aware of your thoughts, but if you start recording them when feeling overwhelmed, then you can restructure them and break the above circle.

A more realistic view of restructured statements of an overwhelmed medical student is shown below:

| NEGATIVE THOUGHTS | RESTRUCTURING NEGATIVE THOUGHTS |
|--|---|
| "For sure I will not finish my studying on time for exams." | "I will try and study as much as I can. I will do my best to work it out given the remaining time. I will create a schedule." |
| "I failed to get a good grade on my last exam, so this will happen again with the rest of my exams." | "One or two exam results cannot define my capabilities. I will give my best to the pending exams. Good and bad results will come maybe. At least I will do my best." |
| "I may not be smart enough to get good grades and then finish my degree." | "Is it true? I made it into medical school and my academic record has been overall very good. I am capable and I have proved that many times." |
| "I am an imposter. I do not belong in medical school as I am failing to get good grades." | "I belong here. I got here with my hard work." |



• After restructuring your thoughts, the next part is to activate yourself, by emitting observable behaviors that could lead to meaningful and healthy changes in your daily life.

For example, some good healthy behavioral habits that could reinforce the restructured thoughts are:

- get out of bed even if you feel that your mood is not great;
- schedule your work and at least make a start today. Procrastination will not help you!
- try to cook a quick meal or take regular walks, so you can do something else for a few minutes instead of continuously studying;
- set some fun goals for the near future (e.g., "when I am done with my exams, I will go to the beach with my partner");
- take good care of yourself by getting out of bed, taking your shower, dressing up, even if you will be studying all day, eating healthy and keeping your social contacts.

If you are at the point where you feel that your everyday functioning is significantly and negatively affected by feelings of being overwhelmed and burnout, then you should not hesitate to contact a mental health provider (e.g., counselor, psychologist, psychiatrist) at your institution's counseling center and set up an appointment. You may also consider discussing your situation with others near you (e.g., friends, teachers, heads of department, family, etc.).



- Work Stress: 5 Tension-Busting Tricks From Cognitive Behavioral Therapy;
- Scientific article on interventions to alleviate burnout symptoms;
- Scientific article on mediators of change in CBT for clinical burnout;
- Scientific article on CBT and mindfulness for stress and burnout.



Mindfulness and Acceptance and Commitment Therapy for burnout

Definition

Acceptance and Commitment Therapy (ACT) includes mindfulness. ACT is the third wave of behavioral therapy, with CBT being the second wave. ACT also helps in improving your cognitive flexibility, which is a vehicle of success in your way to overcome burnout. Finally, ACT helps you set your values, which can guide your steps and motivation toward wellbeing.

How it works

- You will need to set your values and your goals towards a life that you want. For example, a plan like "I would like to finish nursing school and become a philanthropist in a country that needs my services" is too schematic and somehow extreme. You need to define first your path. So, alternatively, you could say to yourself "What is the path? I need to finish nursing school, no matter hard it is. Before doing this, however, I need to focus on my semester work and doing well on my exams. I will do the best I can to study for each exam, and I will find the good part for each step that I take".
- With mindfulness you pay attention to your thoughts, feelings, actions. You become aware on how your body feels when overwhelmed, and what thoughts you get, when you are watching your favorite show. Meditations could help you here.

- Don't struggle to accept yourself and try to act towards your goals and values, even if the result is not guaranteed (e.g., doing well on your exams and getting your degree);
- Acknowledge your situation and where you are now ("I am in the exam session and I need to work towards my goal");
- Take actions! Study as best as you can, take your exams and don't avoid them!

Resources for self-directed practice:

To get a sense of mindfulness meditation, you can try one of the guided recordings by Dr. Ronald Siegel, an Assistant Clinical Professor of Psychology at Harvard Medical School. They are available for free here.

Other resources:

- www.sciencedirect.com
- www.ncbi.nlm.nih.gov
- www.amazon.co.uk
- www.verywellmind.com
- medschool.ucsd.edu

- pubmed.ncbi.nlm.nih.gov
- www.headspace.com
- www.evergreenhealth.com
- www.youtube.com

Self-development groups (based on the model of group therapy)

Definition

Self-development groups are regular meetings of 8-12 students, who often focus on their positive resources and personal lives. They aim to enhance and maintain the participant's self-esteem and personal insight. The self-development group sessions are often led by psychiatrists or psychologists trained in group therapy.

How it works

Participating in a self-development group can help you identify patterns of relationships that are restricting your capacity to relate to other people and it can impact on potential stressors, such as lack of thriving in the study situation, a sense of opposition towards teachers and the curriculum, a feeling of being controlled too much, of having too little space for personal interests, and not being seen as a personality.

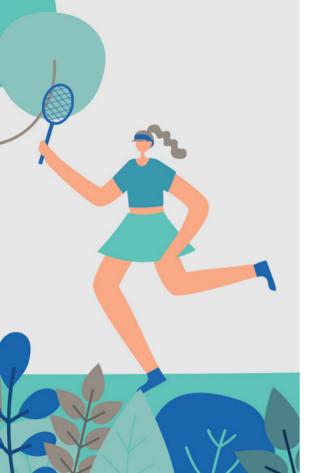
The self-development groups can give you an experience of feeling openness about personal problems, as well as the abilities needed to build a network among your peers. Being part of a self-development group can help you feel closer to other group members and can generate a feeling of having a safety net that would help you solve different kind of problems.

For example, it can help you to talk to colleagues about personal or professional problems, and in this way, you can learn that it is acceptable to have problems, since other will disclose their own problems⁷.

The group participation might also help you to tolerate insecurity and ambiguity, which is an aspect many health professionals may confront with.

Resources for self-directed practice:

An example of a structured course for experiential learning in small groups.



4. Coping skills

Coping strategies are designed to change the person's response to stressful life events (e.g., study-related stressors), so that they have less impact (as opposed to changing the stressors themselves).

There are many techniques that fall within this category, such as time management and conflict resolution, but almost all are characterized by some kind of cognitive restructuring (such as changing one's job expectations, reinterpreting other people's behavior, and imagining new goals and next steps).

- Interventions to increase the perceived control
- Interventions to improve emotional competence

Interventions to increase the perceived control

Definition

One important factor associated with increased stress and burnout is the perceptions of past, present, and future control over specific stressors (e.g., the number of exams, the amount of homework, etc.). Coping skills trainings can aim to increase the level of perceived control, in order to reduce burnout.

How it works

A program aimed to increase the perceived control can be implemented both face to face and on-line. It generally consists of educational modules (where information about stress factors and the role of perceived control in reducing stress is provided) and individual homework (where you can practice, applying the present control in specific stressful situation identified in your everyday life).

The information provided will generally cover topics such as common medical students' stressors and outcomes; past, present and future control of life events and the ability to influence them; how you can avoid pitfalls in implementing present control; techniques to continue developing these skills.

Based on these newly developed abilities, you will be able to approach differently specific stressors. For example, instead of thinking that the number of exams cannot be changed by you, you might find control,

by focusing on the experience of learning for the exams. For example, you could decide to make the studying process more enjoyable (e.g., be studying in a coffee shop).

Resources for self-directed practice: A book chapter on regulation of stress.



Interventions to improve emotional competence

Definition

An intervention program of four 2-hour one-on-one sessions focused on the primary emotional and cognitive components of anxiety. The aim is to help students develop coping skills before anxiety takes over, in order to be able to defeat false beliefs and promote positive thinking, when dealing with exams.

How it works

The program focuses on your intolerance of uncertainty, erroneous beliefs about worry, poor problem orientation, and cognitive avoidance.

The theoretical justification for the treatment is that the anxiety produced by upcoming exams and other required academic work is driven by specific anxious thoughts (e.g., fearful thoughts revolving around symptoms or stemming from situations that provoke anxiety at the time of taking exams) and by the lack of self-confidence, defined as a reduced belief in one's ability to successfully carry out certain activities.

One example of an anxious thought that you might have before an exam is: "It is inconceivable that someone in the same circumstances as me could pass this kind of exam".

To control the anxiety, you could pass through a three-step process:



You could then use activity schedules and records of dysfunctional thoughts to first locate and identify anxious thoughts and then to develop the skills needed to examine them and to formulate the alternatives to be tested in subsequent behavioral assignments.

- Coping with exam anxiety;
- 7 tips to help you cope with exam stress;
- Exam stress: 8 tips to cope with exam anxiety.



5. Social support

Definition

Increasingly, there is a recommendation to turn to other people for help in dealing with burnout. Social support is an individuals' perception or experience in terms of being involved in a social group where people mutually support each other⁸.

Social support can be found within both the workplace (colleagues, mentors, supervisors) and home (family, friends, neighbors). It can take many forms, including assistance, feedback, emotional comfort, encouragement, recognition, and humor.

There is growing research evidence to show that actively connecting to others in positive and compassionate ways increases individual resilience⁹. Benefits are multiple and include mutual appreciation and





togetherness; recharging batteries and acquiring a sense of vitality; and positive physiological changes associated with the experience of well-being.

How it works

There are several things you can do to improve social relationships. Three useful things to do are:

- map and strengthen your social networks (i.e. you can assess the social resources available to you, and identify areas where they could be strengthened);
- improve problematic or strained relationships (i.e. by having more fun together, by showing attention and interest, by offering support or showing trust);
- respond actively and constructively to others, instead of passively and negatively; if a friend tells you about something good that has happened, the best way to answer is by showing authentic, enthusiastic support (e.g., "That's great. Tell me more! When did this happen? How are you feeling?") That will make a real difference to so many people.

- Social support: <u>Tap this tool to beat stress</u>;
- <u>A scientific article</u> on social support skill-training group intervention.

II. SERVICES PROVIDED BY YOUR UNIVERSITY

1. Mentoring and support by a tutor

Definition

Essentially, mentoring is a nurturing process, in which a more skilled or experienced person, serving as a role model, teaches, sponsors, encourages, counsels, and befriends a less skilled person for the purpose of promoting the latter's professional and personal development.

Formal mentoring programs are designed to accomplish specific goals, have a coordinator to oversee operations and evaluate progress, and are of a finite duration. Informal mentoring is spontaneous, based on need and interpersonal attraction, and continues as long as needs are being met¹⁰.







What to expect

In a mentoring program for stress reduction, mentees can be paired with mentors for a set time interval (e.g., for the duration of a semester) during which mentors can provide consultation to the mentees on a diverse number of topics.

For example, a program tested by Demir et al.¹¹ was built around the seven basic needs described by Maslow in his hierarchy. For a list of topics addressed in the mentorship relationship, see the table situated on the next page.

| BASIC NEEDS | CONTENT |
|---------------------|---|
| Physiological needs | Accommodation, nutrition, scholarship |
| Safety needs | Information about the school and the university, awareness of student rights, use of health services, use the health center, clinical practice |
| Cognitive needs | Information about lecturers and lessons, motivation, information about effective study methods, organize the mentee's work schedule, accomplishment in lessons, stress regarding lessons, use of the library, computer and internet use |
| Social needs | Social activities, problems experienced in interpersonal relations, friendship |
| Self-esteem | Self-confidence |
| Self-actualization | Coping with stress, solving mentee's problems, awareness of mentee's personality traits |
| Profession | Mentee's views regarding the profession, anxiety regarding the profession, introduction regarding nursing profession, job possibilities after graduation |



These types of programs are likely to reduce student burnout, as research shows that school or teacher supports have the strongest negative relationship to student burnout¹². Check if your university is providing mentorship programs and try them out!

- <u>A scientific article</u> on the effect of a mentoring program on ways of coping with stress and locus of control
- A systematic review of the literature describing the outcomes of near-peer mentoring programs for first year medical students

2. Balint groups

Definition

The Balint sessions are unique in that the moderator has little involvement, but is used as a guide to keep the participants focused on the goal of self-reflection of shared similar experiences¹³.

The participation in these groups are usually useful to evaluate medical student experiences, to improve communication skills and to reduce the burnout level¹⁴.

Balint group includes a personal story about a problematic therapeutic relationship, told by one of the group participants, and a subsequent group discussion for 1-1,5 hours, challenging the participants to enter into the key roles depicted in the story. All group discussion is confidential (as in psychotherapy); a safe environment is created to express negative or difficult feelings¹⁵.







What to expect

Traditional Balint groups include 7-12 participants and 60-90 minutes sessions in the presence of a trained leader. Usually two facilitators in these groups participate (one of them with a background in psychotherapy and the other is a trainee psychiatrist, undertaking advanced training in psychotherapies and adult psychiatry).

Participants have the opportunity to freely express their thoughts and feelings, for the benefit of all others. Students can also meet in such a group, to discuss relational aspects of their interactions with patients.

- A very short introduction to Balint groups;
- Balint groups <u>A tool for personal and professional</u> resilience.

REFERENCES

- 1. Maslach, C. (2017). Finding solutions to the problem of burnout. Consulting Psychology Journal: Practice and Research, 69(2), 143.
- 2. Davis, M., Eshelman, E.R., McKay, M. (2008). The Relaxation and Stress Reduction Workbook. Oakland, CA: New Harbinger Publications.
- **3.** Bernstein, D.A., Borkovec, T.D., Hazlett-Stevens, H. (2000). New Directions In Progressive Relaxation Training: A Guidebook for Helping Professionals. Westport: Praeger/Greenwood Publishing Group.
- **4.** Awa, W. L., Plaumann, M., Walter, U. (2010). Burnout prevention: A review of intervention programs. Patient education and counseling, 78(2), 184-190.
- 5. Fenn, M.K., Byrne, M. (2013). The key principles of cognitive behavioral therapy. InnovAiT, 6 (9), 579-585.
- **6.** Hofmann, S.G., Asnaani, A., Vonk, I. J., Sawyer, A.T., Fang, A. (2012). La eficacia de la terapia cognitiva conductual: una revisión de los metanálisis. Terapia cognitiva e investigación, 36(5), 427-440.
- 7. Busireddy, K. R., Miller, J. A., Ellison, K., Ren, V., Qayyum, R., Panda, M. (2017). Efficacy of interventions to reduce resident physician burnout: A systematic review. Journal of Graduate Medical Education, 9(3), 294–301.
- **8.** Hajli, M., Shanmugam, M., Hajli, A., Khani, A., Wang, Y. (2015). Health care development: integrating transaction cost theory with social support theory. Informatics for Health and Social Care, 40, 334 344.



- **9.** Erschens, R., Loda, T., Herrmann-Werner, A., Keifenheim, K. E., Stuber, F., Nikendei, C., Zipfel, S., & Junne, F. (2018). Behaviour-based functional and dysfunctional strategies of medical students to cope with burnout. Medical Education Online, 23(1), 1535738.
- **10.** Dorsey, L.E., Baker, C. M. (2004). Mentoring undergraduate nursing students: assessing the state of the science. Nurse Educator, 29(6), 260-265.
- **11.** Demir, S., Demir, S. G., Bulut, H., Hisar, F. (2014). Effect of mentoring program on ways of coping with stress and locus of control for nursing students. Asian Nursing Research, 8(4), 254-260.
- **12.** Kim, B., Jee, S., Lee, J., An, S., Lee, S.M. (2018). Relationships between social support and student burnout: A meta-analytic approach. Stress and Health: Journal of the International Society for the Investigation of Stress, 34(1), 127-134.
- **13.** Mahoney, D., Diaz, V., Thiedke, C., Mallin, K., Brock, C., Freedy, J., Johnson, A. (2013). Balint groups: the nuts and bolts of making better doctors. International Journal of Psychiatry in Medicine, 45(4), 401–411.
- **14.** Yazdankhahfard, M., Haghani, F., Omid, A. (2019). The Balint group and its application in medical education: A systematic review. Journal of Education and Health Promotion, 8, 124.
- **15.** Olds, J., Malone, J. (2019). The implementation and evaluation of a trial Balint group for clinical medical students. Journal of Balint Society, 44, 319.

