

# Curriculum development using VR technology to enhance empathetic communication skills in future health care professionals

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# Curriculum development using VR technology to enhance empathetic communication skills in future health care professionals

## Project Coordinator:



[www.mmclearningsolutions.com](http://www.mmclearningsolutions.com)

## Project partners



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# Work Area 3: *Showing empathy in diverse environments and overcoming barriers/ challenges to empathy*

Unit 3.2: Challenges to empathy in healthcare and how to overcome these

Duration: 6 hours

Trainer:



# Unit 3.2: Challenges to empathy in healthcare and how to overcome these



## Learning Outcomes (knowledge)

54. Outline challenges to empathy in health care:
  - The students know the impact of work place stress on his/her empathy.
  - The students know factors related to work place stress
  - The students know the concept of emotional labour
55. Define burnout and describe the relationship between empathy and burnout
56. Identify and label evidence-based instruments for assessing burnout and stress-related conditions when working in health care
57. Identify and label evidence-based methods for preventing and/or treating burn out



# Learning Outcomes (skills)



58. Use self-reflection to recognise symptoms that he/she might be burnt out
  - The students reflect on his exposure to work place stress based on a socioecological model
  - The students discuss the model of emotional labour
59. Use appropriate instruments/resources for testing his/her symptoms of burn-out
60. Practice techniques to reduce stress and burn-out
61. Seek appropriate help

# Learning Outcomes (competences)

- 62. Advocate and model self-caring attitudes
- 63. Increase self-confidence in self-caring under stressful situations
- 64. Model a positive, calm and mindful approach when dealing with stressful situations, e.g., in using emotional regulation and self-reflection



# Participation Contract

- ▶ Mobile Phones
- ▶ Breaks
- ▶ Other



# Participation

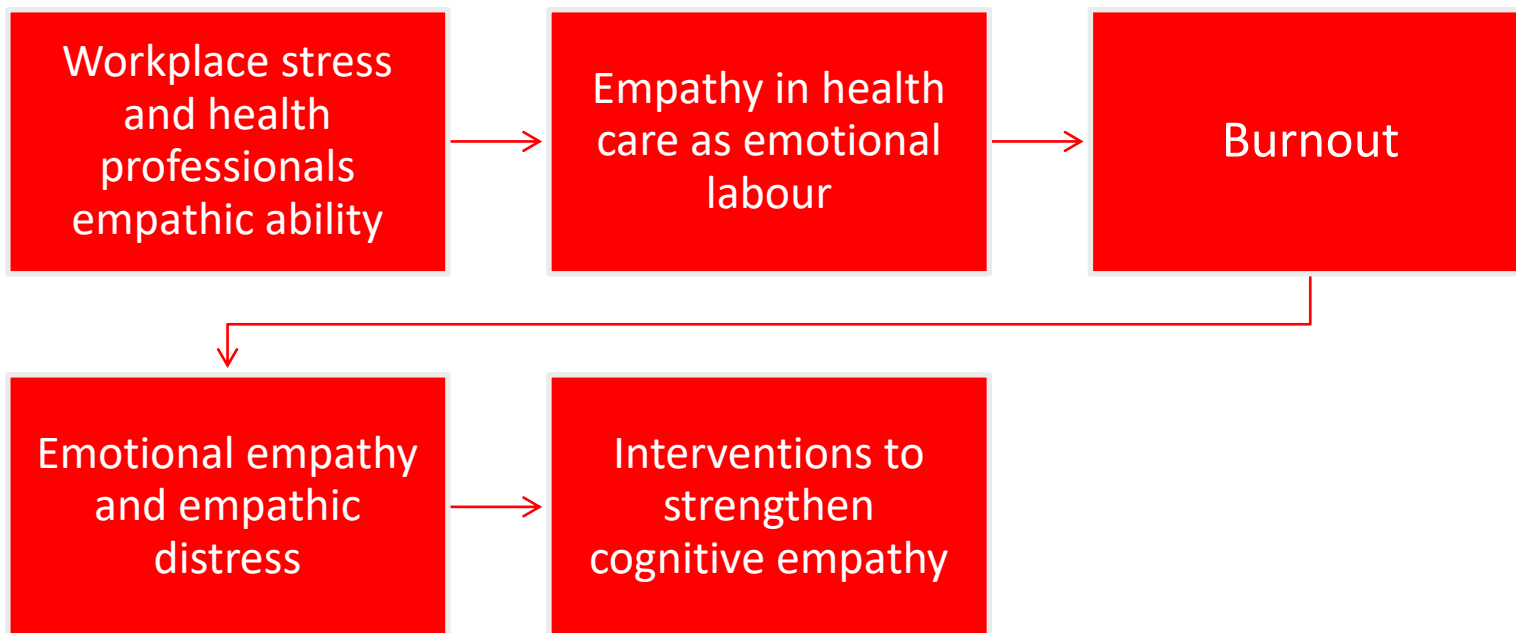
# Respect

# Express your opinion

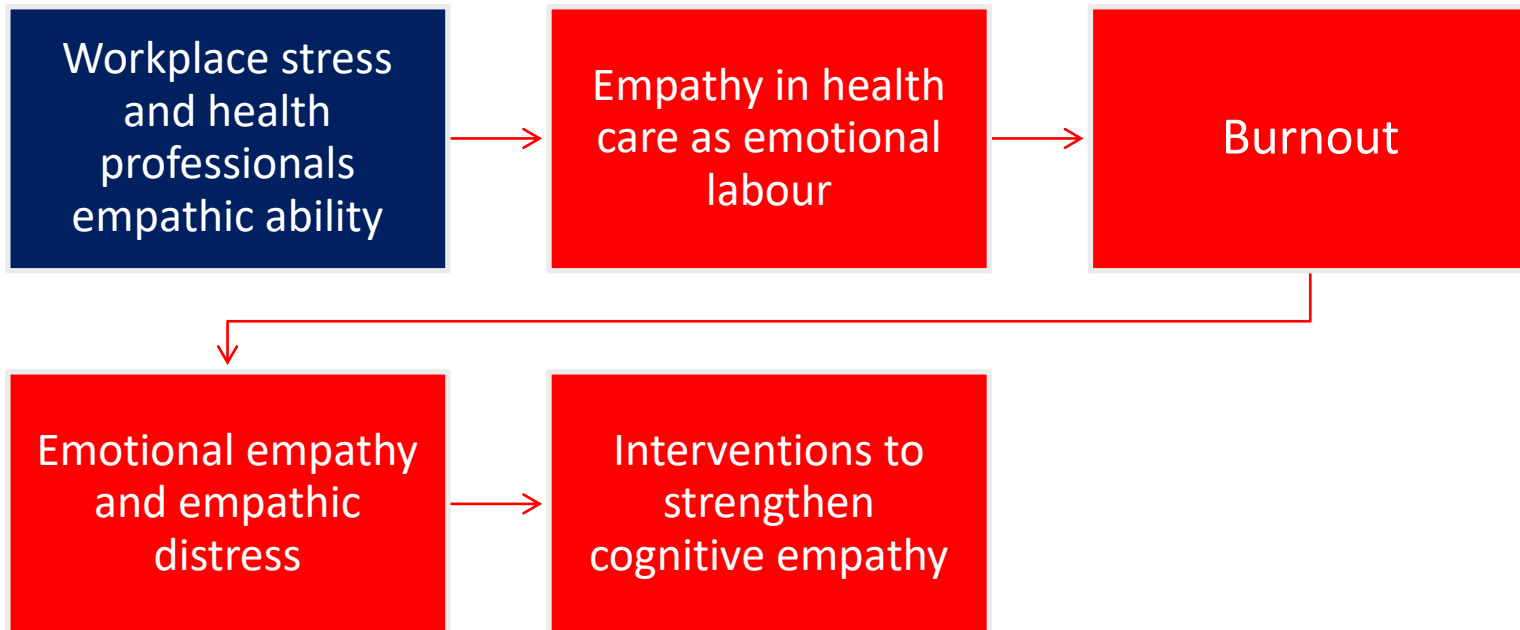




# Route Map



# Route Map

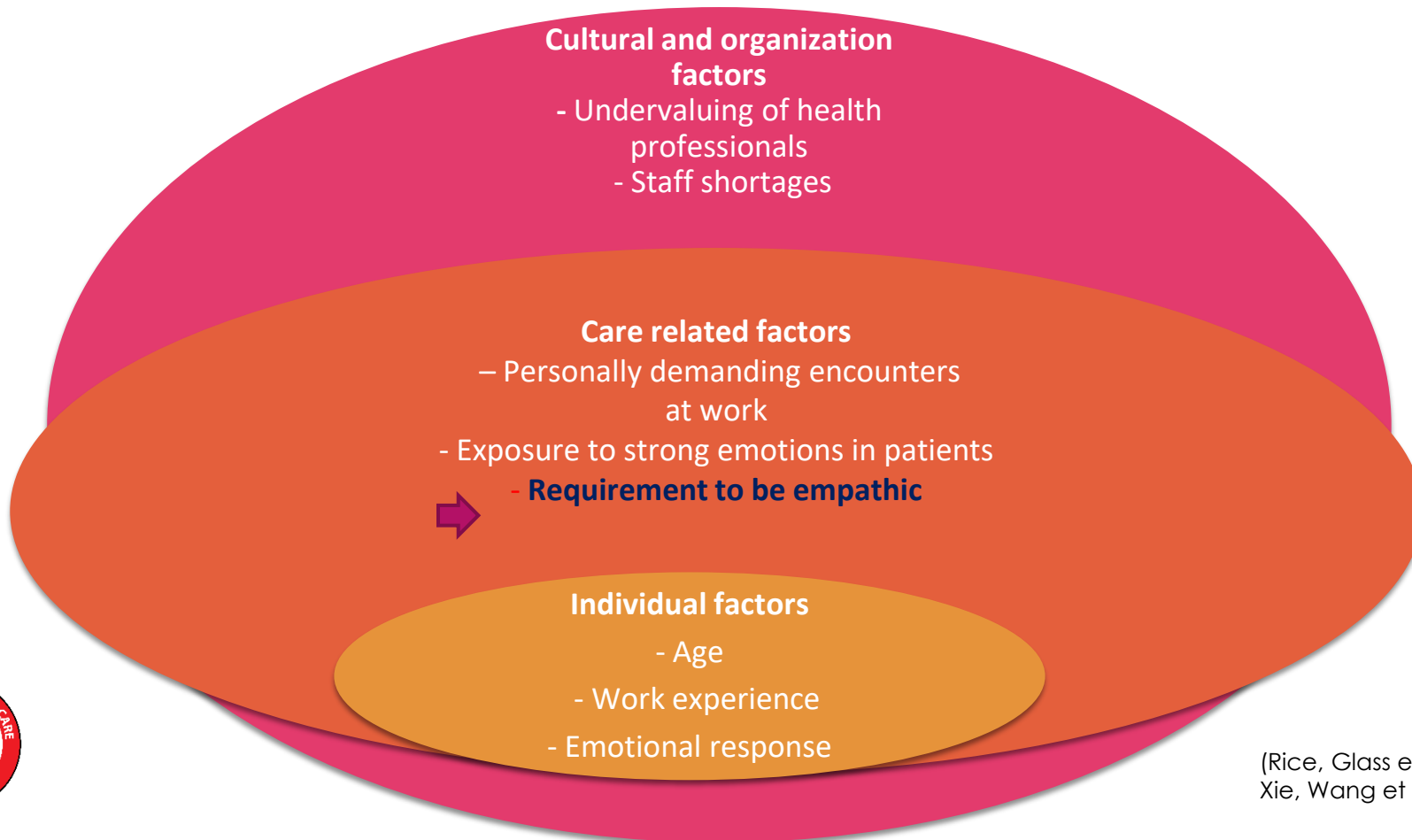


# Challenges To Empathy In Health Care

- ▶ Workplace stress = threat to health professionals  
**empathic ability**
  - ▶ Stress can cause anxiety and trigger individuals to fall back on what they know to be true —namely, their **own perspectives and feelings**  
(Ahrweiler et al., 2014)
- ▶ High levels of workplace stress among health care professionals  
(Rice, Glass et al. 2014)



# Factors Related To Workplace Stress In Health Care Professionals

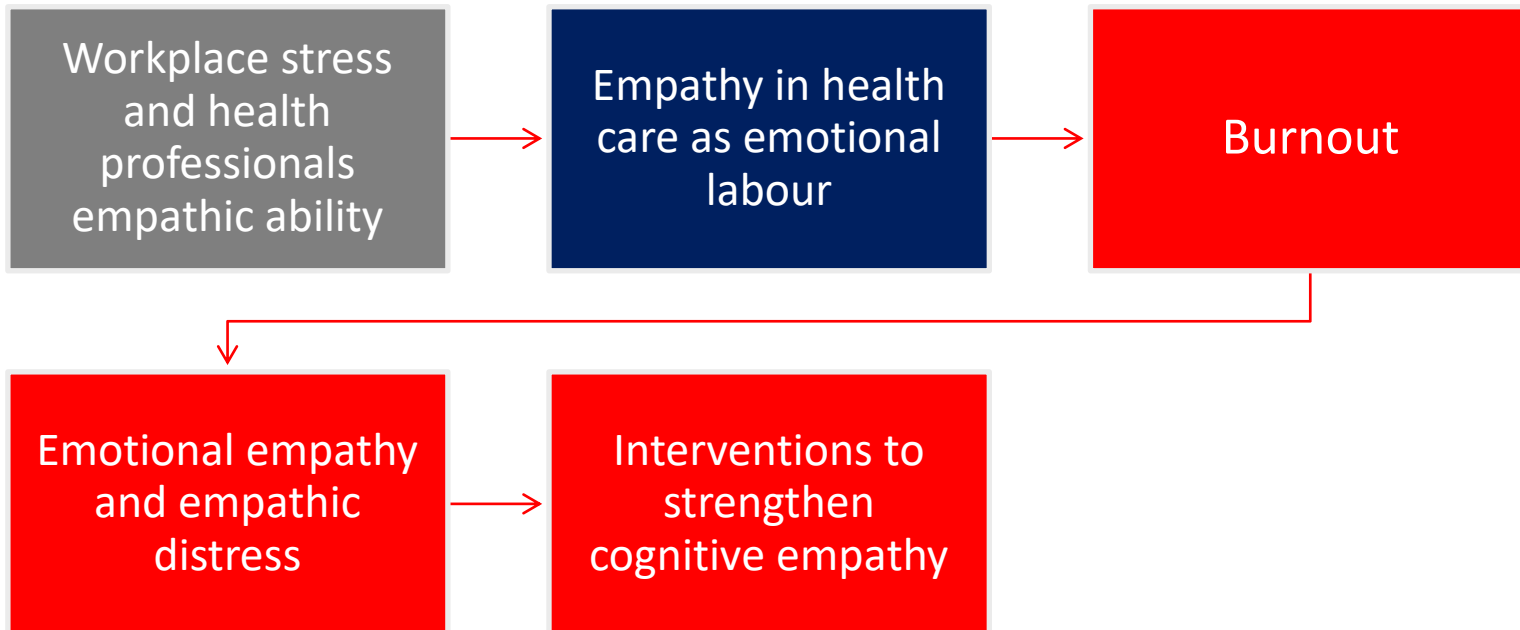


# Individual Exercise: Stressors in my Work Environment

- ▶ Please reflect:
  - ▶ Which of the factors described in the model are relevant to **your** current work situation/to your work environment?



# Route Map



# The Concept of Emotional Labour

- ▶ Emotional labour = effort involved in managing feelings when the work role specifies that **particular emotions (e.g. empathy)** should be displayed and others should be hidden
- ▶ Health care has all three elements of jobs requiring emotional labour:
  - ▶ Intensive contact with the public
  - ▶ The need to produce an emotional state in other people
  - ▶ A set of explicit or implicit rules regarding the type of emotional display that is appropriate and inappropriate

(Hochschild 1983)



# Brainstorming – Is Empathy Emotion Work for Health Care Professionals?

- ▶ The concept of **emotional work** is based on the assumption that the “appropriate” emotional response (e.g. in health care = **empathy**) will not always arise spontaneously



- ▶ Please ‘think, pair, share’:
  - ▶ Do you find it **always easy** to be empathetic?
  - ▶ Have you ever experienced/or witnessed a situation **where it was difficult** for you/ a colleague **to show empathy**?
  - ▶ How did you/your colleague deal with that situation?



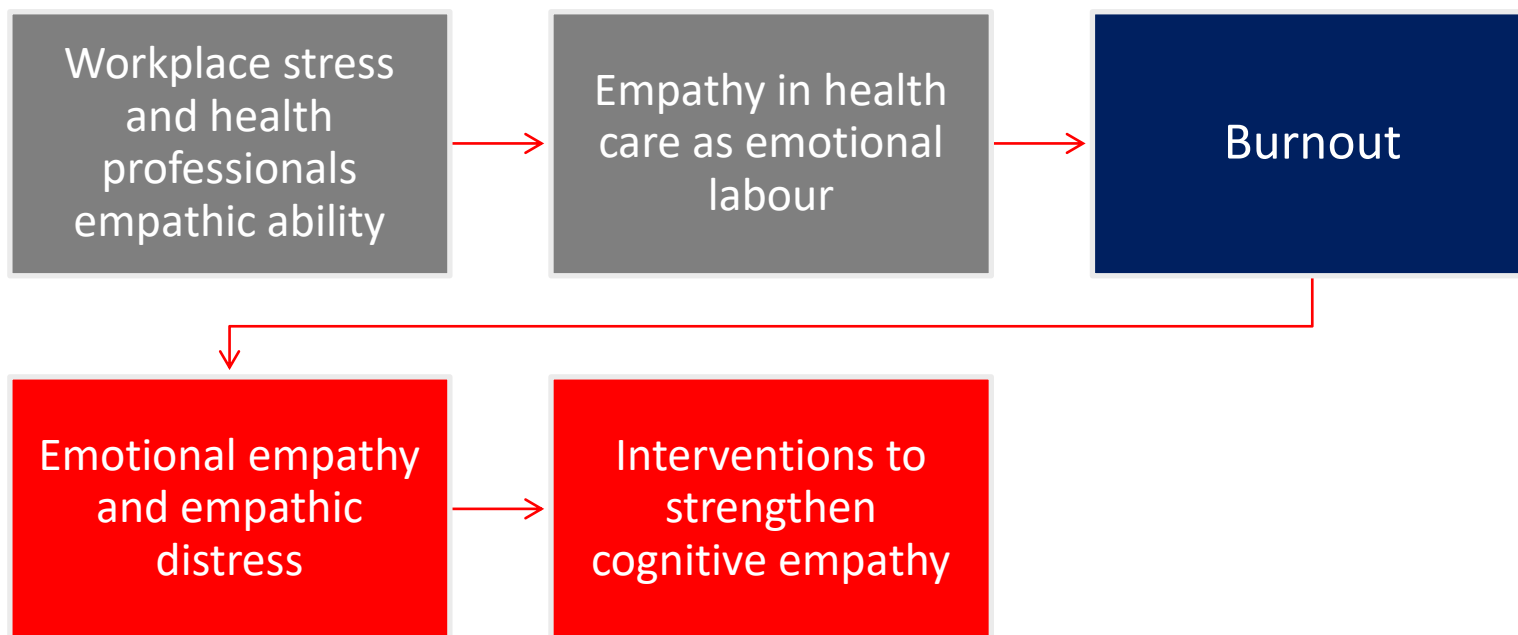


# Empathy as Emotional Labor In Healthcare

- ▶ Empathy = **fundamental requirement in all healthcare professions**
  - ▶ Showing empathy and avoiding expressions of negative feelings toward clients are **essential job role expectations** in health care
- ▶ Showing empathy whilst dealing with patients' illness and suffering represents **emotional labour** (Hunter 2001; Riley and Weiss 2016)
- ▶ Emotional labour is a source of **workplace stress in health care and can lead to burnout** (Kerasidou and Horn 2016)



# Route Map



# Burnout - Definition

- ▶ Burnout is a **work-related stress syndrome** resulting from chronic exposure to job stress
- ▶ Burnout is characterized by
  1. Emotional exhaustion
  2. Depersonalization and
  3. A low sense of personal accomplishment
- ▶ Also described as **erosion of engagement** with ones' job that happens **gradually over time**

(Maslach et al., 2001)

(Bakker and Costa, 2014)



# Burnout - Implications

- ▶ Burnout has personal and interpersonal implications and also affects health care
- ▶ Personal implications:
  - **overwhelming** exhaustion and feelings of incompetence
- ▶ Interpersonal implications:
  - cynicism and depersonalisation – **reduces empathy**
- ▶ Implications for healthcare
  - Contributes to **poor outcomes**, including worse patient safety, and to lower patient satisfaction

(Maslach et al., 2001)

(Poghosyan, Clarke et al. 2010)



# Assessment of Burnout: The Maslach Burnout Inventory (MBI)

MBI = the most common, well validated measure of burnout

- ▶ 22 items, scored on 7-point Likert scales (0 = never, 6 = everyday).
- ▶ 3 subscales:
  - ▶ Emotional exhaustion
  - ▶ Depersonalization
  - ▶ Personal accomplishment
- ▶ Example of a positively worded item:

*“I feel emotionally drained from my work”*

(Maslach et al., 2001)



# Assessment of Burnout: Single Item Measure

- ▶ MBI is proprietary and carries licensing fees = challenge to routine or repeated assessment
- ▶ Valid assessment **using single item from MBI** (emotional exhaustion subscale): “I feel burned out from my work.”
  1. Never
  2. A few times a year or less
  3. Once a month or less
  4. A few times a month
  5. **Once a week**
  6. **A few times per week**
  7. **Every day**

} **high burnout risk**

(West, Dyrbye et al. 2012, 2009)



# Individual Exercise: Checking Yourself for Risk of Burnout

- ▶ Please perform
  - 1) The single item assessment and then
  - 2) The Workplace Stress Scale to get information about your burnout risk
  - ▶ Compare the results of both assessments
  - ▶ Do the results surprise you?



# How to Seek Appropriate Help

- ▶ Health care professionals who suffer from burnout frequently delay seeking support (Putnik, de Jong et al. 2011)
- ▶ However, it is important **that you seek help before the burnout symptoms get worse:**
  - ▶ **Reach out** to co-workers, friends or loved ones - support and collaboration might help you cope.
  - ▶ Check if there are **employee assistance** programs or **counselling** services at your work - take advantage of relevant services





# Research on burnout and emotional and cognitive empathy

(Harscher, Desmarais et al. 2018)

## ► Objective:

To understand the relationship between empathy (**Empathic Concern [EC] and Personal Distress [PD]; similar to empathic stress**) and burnout in medical students

## ► Method:

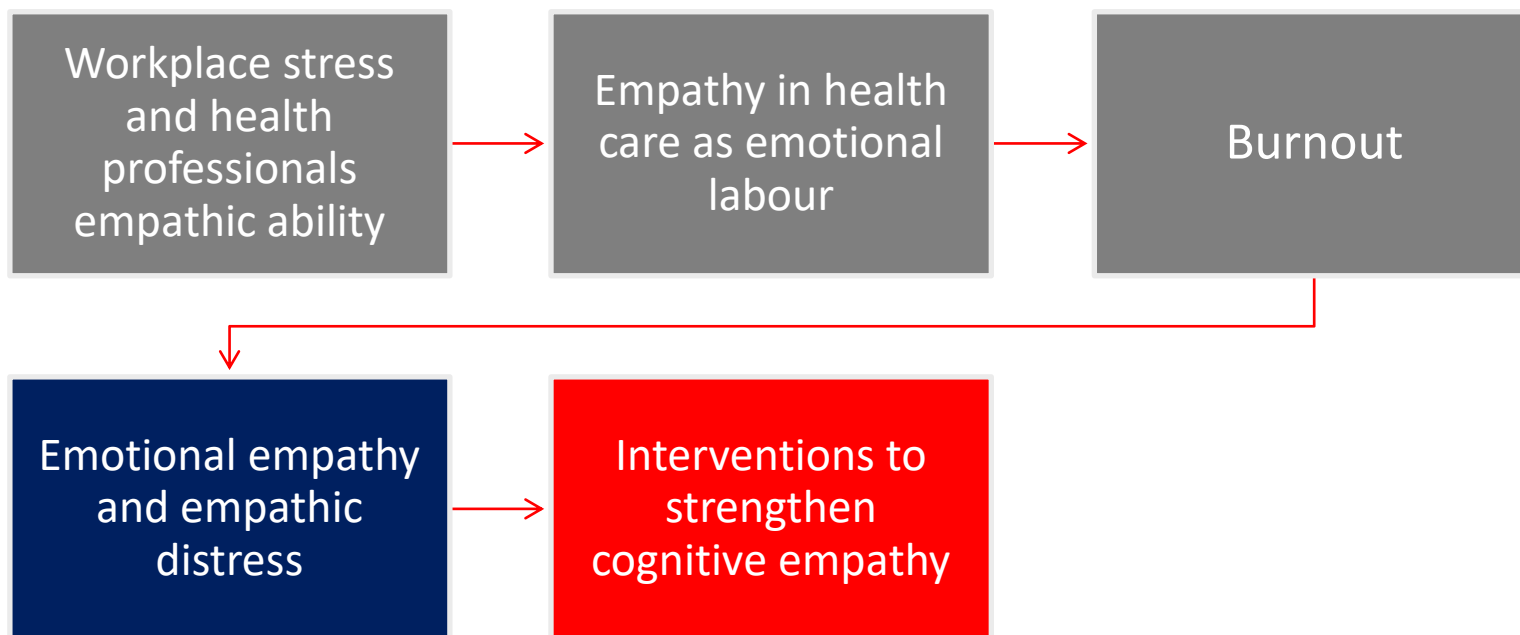
Five successive classes of medical students (n = 353) were given the Maslach Burnout Inventory and Davis' Interpersonal Reactivity Index over the course of three successive years Data was analyzed for each of the three components of burnout based on gender, age, year in medical school, **and two types of empathy: Empathic concern (EC) and Personal Distress (PD)**

## ► Results:

Students **with high levels of EC had statistically lower scores of burnout** over time while students with high levels of PD empathy showed statistically higher scores of burnout over three years.



# Route Map



# Emotional and Cognitive Components of Empathy

- ▶ Empathy has both **affective (=emotional)** and **cognitive** components
- ▶ The affective component of empathy relates to sharing the emotions of the other person
  - ▶ This sharing of emotions, or **emotional contagion**, is an automatic response
  - ▶ Sharing emotions for the empathiser leads to feelings of **empathic concern, which is key for an empathic exchange**
  - ▶ However, if emotions are **over aroused**, **personal/empathic distress can develop**

(Decety and Hodges, 2006; Decety and Yoder 2016)

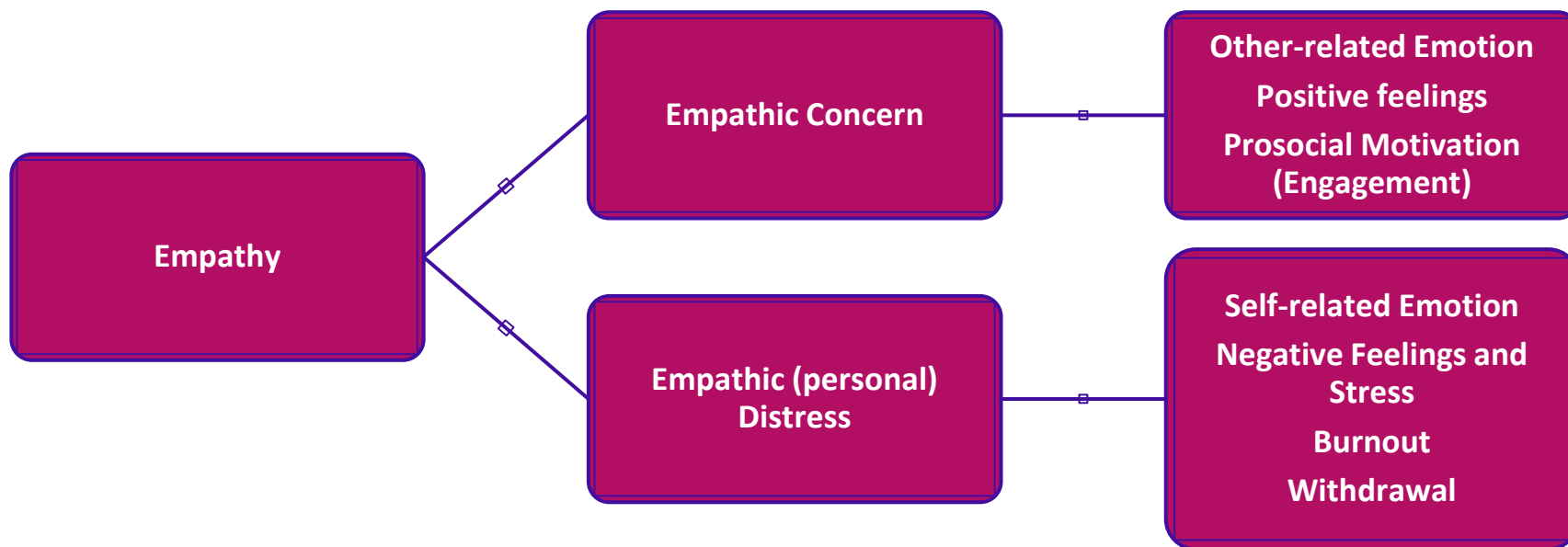


# Empathic Distress

- ▶ Strong aversive and **self-oriented response** to the suffering of others
  - **Form of empathic overarousal** that results from **poor emotion regulation** and lessened self-other distinction
- ▶ Empathic distress can lead to the **desire to withdraw** from a situation in order to protect one's self from excessive negative feelings



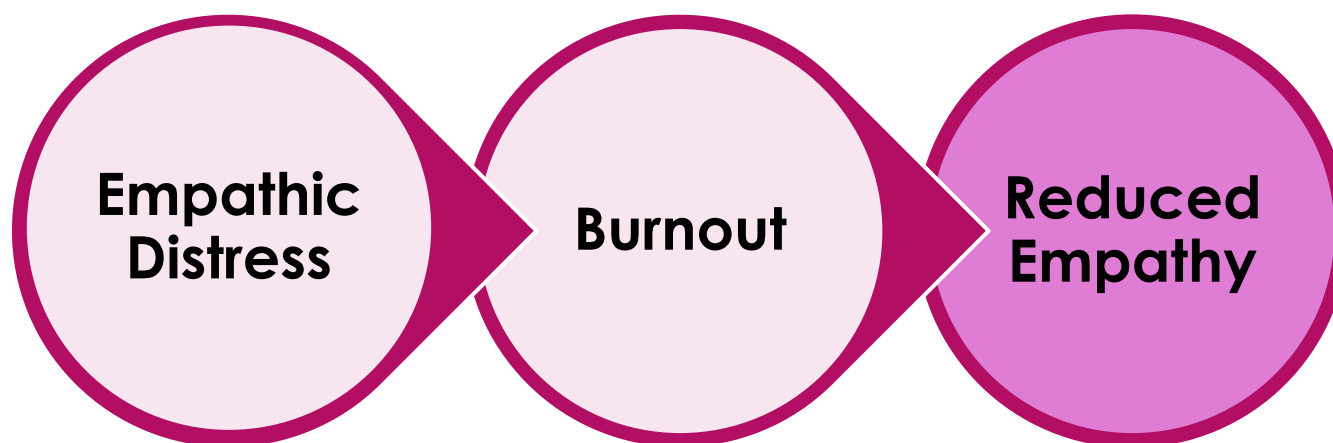
# Effects of Empathic Concern and Empathic Distress



(figure adapted from Dowling, 2018)



# Empathic Distress, Burnout and Empathy



# Video

Please watch the BBC Video on  
Empathy

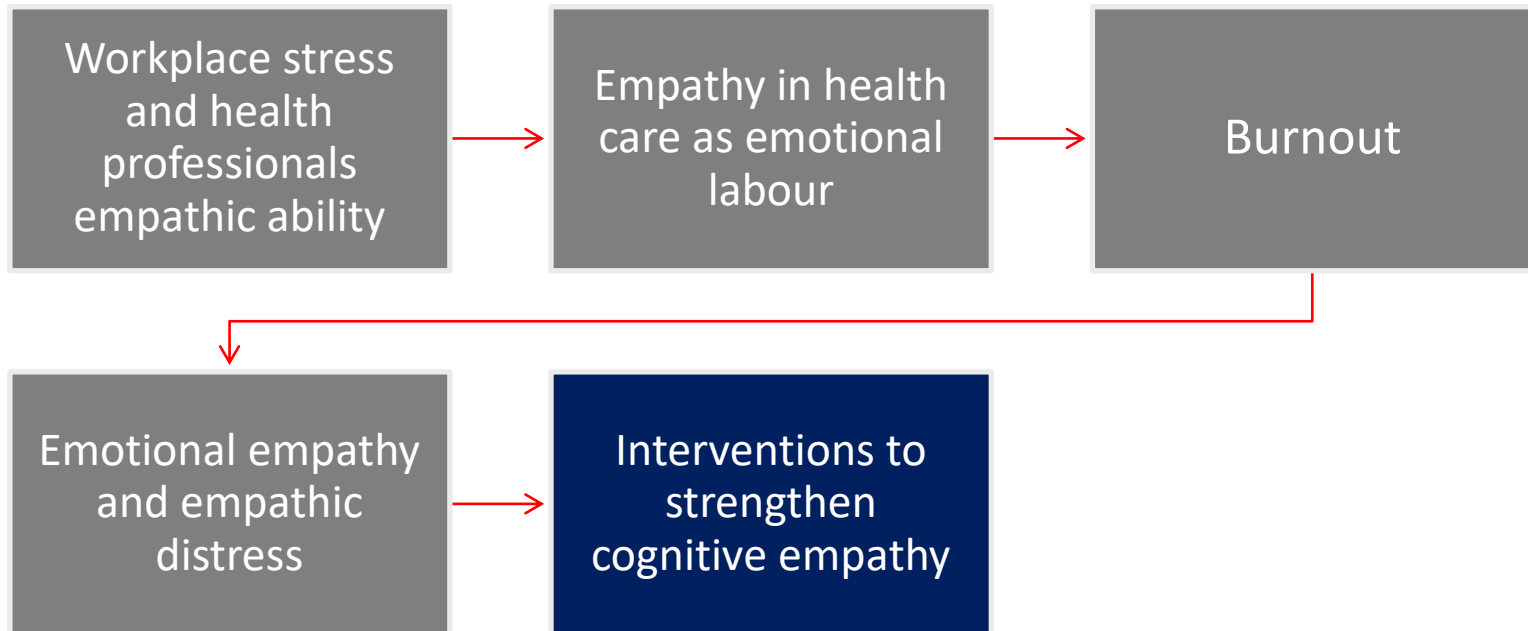
(<https://youtu.be/QzuV51Hv8TA>)

Make notes to answer the following  
questions:

- ▶ What do the authors mean by ,the dark side of empathy‘?
- ▶ Why is this relevant to ,Empathy in Health‘?
- ▶ What **tips for health professionals** do the researchers have to offer in the video?



# Route Map





# Reducing Empathic Distress Using Emotional Regulation

- ▶ Emotional regulation in health care refers to the **processes by which one manages emotions** during engagement with patients
  - ▶ also described as **self-awareness during empathic engagement** with patients (Tei, Becker et al. 2014)
  - ▶ intrinsically related to empathy (Thompson et al.,2019)
- ▶ Without the ability to regulate one's own emotions, excessive emotional empathy may lead to burnout (Zeidner, Hadar et al. 2013)
- ▶ **Emotional regulation training** has been found to be successful in reducing workplace stress and burnout in health care professional (Weilenmann, Schnyder et al. 2018; Kharatzadeh, Alavi et al. 2020)



# Exercise: How Do You Manage Your Emotions?

- ▶ At home?
- ▶ At work?
- ▶ When being with friends?
- ▶ What helps you to regulate your emotions in stressful situations?



# Emotion Regulation Through Cognitive Reappraisal

- ▶ **Cognitive reappraisal** involves thinking about a negative or challenging situation in a more **positive** way.
  - ▶ Example: Imagine a friend did not return your calls or texts for several days. Rather than thinking that this reflected something about yourself, such as "my friend hates me," you might instead think, "my friend must be really busy."
- ▶ Using cognitive **reappraisal** in everyday life is related to experiencing more positive and less negative emotions

(McRae, Ciesielski et al. 2012)



# Individual Exercise: Cognitive Reappraisal

- ▶ Please **remember a situation at work that has caused you stress and negative thinking.**
- ▶ Please work with the 'Thought-Record' worksheet:
  - ▶ First **describe** the situation using your original interpretation
  - ▶ Following this try to think of **at least two different ways to reappraise** the situation and describe them as required in the worksheet



# Reducing Empathic Distress Using Mindfulness Interventions

- ▶ Mindfulness interventions have been found to have a **significant impact** on health care professional's level of burnout  
(Conversano, Ciacchini et al. 2020, van der Riet, Levett-Jones et al. 2018)
- ▶ Mindfulness meditation reduce stress, depression and anxiety in nurses and nursing students
- ▶ **Dispositional mindfulness** is a protective factor for stress and burnout in nursing students  
(van der Riet, Levett-Jones et al. 2018)



# Individual Exercise: 4-7-8 Breathing (Relaxing Breath)

- ▶ Rationale:
  - ▶ The focus on the outbreath activates the parasympathetic nervous system (PSNS)—this slows our heart and breathing rates and lowers blood pressure
    - this reduces stress (Varvogli and Darviri 2011)
- ▶ Technique: Adopt a **comfortable sitting position**
  - ▶ Place the tip of the tongue on the tissue right behind the top front teeth
- ▶ Focus on the following breathing pattern
  - ▶ **Empty** the lungs of air
  - ▶ **Breathe in** quietly through the nose for **4** seconds
  - ▶ **Hold** the breath for a count of **7** seconds
  - ▶ **Exhale** forcefully through the mouth, **pursing the lips and making** “whoosh” sound, for **8** seconds (repeat as long as necessary to reduce distress)



# Individual Exercise: Remaining Calm and Mindful During Stressful Situations

- ▶ Please think of an example when **you or someone you observed had a calm and mindful approach** during a stressful professional situation?
  - ▶ Describe **the behavior** that went with the calm and mindful approach
  - ▶ How did the environment react to this?
  - ▶ How did **it make you feel**?



# Self-Care to prevent Burnout

Self Care = Practices that individuals initiate and perform to maintain their life, health and wellbeing

(World Health Organization 2018)

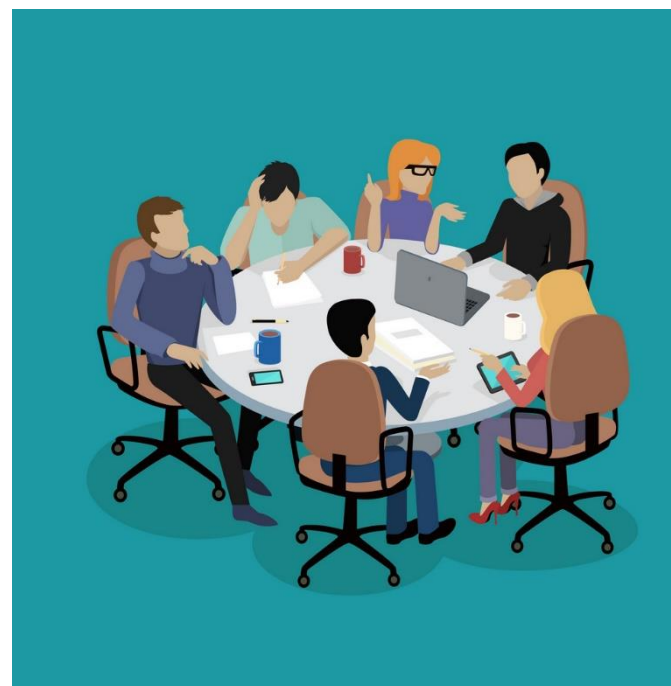
- ▶ Self-care practices **can buffer workplace stress** in health professional  
(Nahm, Warren et al. 2012)
- ▶ Self care can be physical, psychological or spiritual
  - ▶ E.g. eating, sleeping, and moving well are achievable self care goals  
(Couser, Chesak et al. 2020)





# Group Discussion: Self-care Strategies

- ▶ **Please pair up** with another student and have an exchange about the following points:
- ▶ What are activities/ things **you do to take care of yourself**, e.g. after a stressful working day or week
- ▶ Have you **observed** other, e.g. your educators, friends, family, role – models practice self-caring?



- ▶ What does this look like?

# Exercise: Goals For Self-Care In Daily Life

- ▶ In pairs of two, please discuss which self care measures you would like to incorporate in your daily life
- ▶ Create each a SMART goal (see below) for one of these self care measures.



# Revision Questions

- ▶ **What challenges** our capacity for empathy in health care?
  - ▶ Name **two threats** to empathy in the health care environment
- ▶ How is **burnout** defined and assessed?
- ▶ In what way can empathy lead to burnout in health care professionals?
  - ▶ **Which two components of empathy** are relevant here?
- ▶ Please **name two evidence-based strategies to prevent burnout**
  - ▶ Describe **one exercise** for each strategy



- Challenges to empathy in health care
- Definition and assessment of burnout
- Relationship between empathy and burnout
- Strategies to prevent burnout



## Key Points

# References (1)

- Ahrweiler, F., Neumann, M., Goldblatt, H., Hahn, E. G., & Scheffer, C. (2014). Determinants of physician empathy during medical education: hypothetical conclusions from an exploratory qualitative survey of practicing physicians. *BMC Med Educ*, *14*, 122.
- Bakker, A. B., Le Blanc, P. M., & Schaufeli, W. B. (2005). Burnout contagion among intensive care nurses *Journal of Advanced Nursing*, *51*(3), 276-287.
- Brooke, T., Brown, M., Orr, R., & Gough, S. (2020). Stress and burnout: exploring postgraduate physiotherapy students' experiences and coping strategies. *BMC Medical Education*, *20*(1), 1-11.
- Conversano, C., Ciacchini, R., Orrù, G., Di Giuseppe, M., Gemignani, A., & Poli, A. (2020). Mindfulness, Compassion, and Self-Compassion Among Health Care Professionals: What's New? A Systematic Review. *Front Psychol*, *11*, 1683. doi:10.3389/fpsyg.2020.01683
- Couser, G., Chesak, S., & Cutshall, S. (2020). Developing a Course to Promote Self-Care for Nurses to Address Burnout. *OJIN: The Online Journal of Issues in Nursing*, *25*(3).
- Crumpei, I., & Dafinoiu, I. (2010). Secondary traumatic stress, the side effect of clinical empathy. *Rev Med Chir Soc Med Nat Iasi*, *114*(4), 1092-1100.
- Decety, J., & Lamm, C. (2009). Empathy vs. personal distress. In J. Decety & W. Ickes (Eds.), *The social neuroscience of empathy*. Cambridge, UK: MIT Press.
- Decety, J., & Yoder, K. J. (2016). Empathy and motivation for justice: Cognitive empathy and concern, but not emotional empathy, predict sensitivity to injustice for others. *Social neuroscience*, *11*(1), 1-14.
- Dowling, T. (2018). Compassion does not fatigue! *The Canadian veterinary journal = La revue veterinaire canadienne*, *59*(7), 749-750.
- Hochschild, A. R. (1983). *The Managed Heart. Commercialisation of Human Feeling*. CA.
- Hunter, B. (2001). Emotion work in midwifery: a review of current knowledge. *Journal of Advanced Nursing*, *34*(4), 436-444.
- Kerasidou, A., & Horn, R. (2016). Making space for empathy: supporting doctors in the emotional labour of clinical care. *BMC Medical Ethics*, *17*(1), 8. doi:10.1186/s12910-016-0091-7
- Kharatzadeh, H., Alavi, M., Mohammadi, A., Visentin, D., & Cleary, M. (2020). Emotional regulation training for intensive and critical care nurses. *Nursing & Health Sciences*, *22*(2), 445-453. doi:https://doi.org/10.1111/nhs.12679



## References (2)

- Leinweber, J., Creedy, D. K., Rowe, H., & Gamble, J. (2016). Responses to birth trauma and prevalence of posttraumatic stress among Australian midwives. *Women Birth, 30*(1), 40-45. doi:10.1016/j.wombi.2016.06.006
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annu Rev Psychol, 52*, 397-422. doi:10.1146/annurev.psych.52.1.397
- McRae, K., Ciesielski, B., & Gross, J. J. (2012). Unpacking cognitive reappraisal: goals, tactics, and outcomes. *Emotion, 12*(2), 250.
- Nahm, E.-S., Warren, J., Zhu, S., An, M., & Brown, J. (2012). Nurses' self-care behaviors related to weight and stress. *Nursing Outlook, 60*(5), e23-e31. doi:<https://doi.org/10.1016/j.outlook.2012.04.005>
- Nielsen, H. G., & Tulinius, C. (2009). Preventing Burnout Among General Practitioners: is There a Possible Route? *Education for Primary Care, 20*(5), 353-359. doi:10.1080/14739879.2009.11493817
- Pérez-Fuentes, M. d. C., Herrera-Peco, I., Molero Jurado, M. d. M., Oropesa Ruiz, N. F., Ayuso-Murillo, D., & Gázquez Linares, J. J. (2020). A Cross-Sectional Study of Empathy and Emotion Management: Key to a Work Environment for Humanized Care in Nursing. *Front Psychol, 11*(706). doi:10.3389/fpsyg.2020.00706
- Poghosyan, L., Clarke, S. P., Finlayson, M., & Aiken, L. H. (2010). Nurse burnout and quality of care: cross-national investigation in six countries. *Research in Nursing & Health, 33*(4), 288-298. doi:10.1002/nur.20383
- Putnik, K., de Jong, A., & Verdonk, P. (2011). Road to help-seeking among (dedicated) human service professionals with burnout. *Patient Education and Counseling, 83*(1), 49-54. doi:<https://doi.org/10.1016/j.pec.2010.01.004>
- Rice, V., Glass, N., Ogle, K., & Parsian, N. (2014). Exploring physical health perceptions, fatigue and stress among health care professionals. *Journal of multidisciplinary healthcare, 7*, 155-161. doi:10.2147/JMDH.S59462
- Riley, R., & Weiss, M. C. (2016). A qualitative thematic review: emotional labour in healthcare settings. *Journal of Advanced Nursing, 72*(1), 6-17. doi:<https://doi.org/10.1111/jan.12738>
- Rogan, S., Verhavert, Y., Zinzen, E. et al. Risk factor and symptoms of burnout in physiotherapists in the canton of Bern. *Arch Physiother 9, 19* (2019). <https://doi.org/10.1186/s40945-019-0072-5>
- Sheen, K., Slade, P., & Spiby, H. (2014). An integrative review of the impact of indirect trauma exposure in health professionals and potential issues of salience for midwives. *Journal of Advanced Nursing, 70*(4), 729-743. doi:10.1111/jan.12274



## References (3)

- Tei, S., Becker, C., Kawada, R., Fujino, J., Jankowski, K. F., Sugihara, G., . . . Takahashi, H. (2014). Can we predict burnout severity from empathy-related brain activity? *Translational Psychiatry*, 4(6), e393-e393. doi:10.1038/tp.2014.34
- van der Riet, P., Levett-Jones, T., & Aquino-Russell, C. (2018). The effectiveness of mindfulness meditation for nurses and nursing students: An integrated literature review. *Nurse Education Today*, 65, 201-211. doi:https://doi.org/10.1016/j.nedt.2018.03.018
- Varvogli, L., & Darviri, C. (2011). Stress management techniques: evidence-based procedures that reduce stress and promote health. *Health science journal*, 5, 74-89.
- von Harscher, H., Desmarais, N., Dollinger, R., Grossman, S., & Aldana, S. (2018). The impact of empathy on burnout in medical students: new findings. *Psychology, Health & Medicine*, 23(3), 295-303. doi:10.1080/13548506.2017.1374545
- Wacker, R., & Dziobek, I. (2018). Preventing empathic distress and social stressors at work through nonviolent communication training: A field study with health professionals. *J Occup Health Psychol*, 23(1), 141-150. doi:10.1037/ocp0000058
- Weilenmann, S., Schnyder, U., Parkinson, B., Corda, C., von Känel, R., & Pfaltz, M. C. (2018). Emotion Transfer, Emotion Regulation, and Empathy-Related Processes in Physician-Patient Interactions and Their Association With Physician Well-Being: A Theoretical Model. *Frontiers in psychiatry*, 9, 389.
- West, C. P., Dyrbye, L. N., Sloan, J. A., & Shanafelt, T. D. (2009). Single item measures of emotional exhaustion and depersonalization are useful for assessing burnout in medical professionals. *J Gen Intern Med*, 24(12), 1318-1321.
- World Health Organisation. (2018). Health education of self-care: possibilities and limitations. Geneva, Switzerland.
- Xie, Z., Wang, A., & Chen, B. (2011). Nurse burnout and its association with occupational stress in a cross-sectional study in Shanghai. *J Adv Nurs*, 67(7), 1537-1546. doi:10.1111/j.1365-2648.2010.05576.x
- Zeidner, M., Hadar, D., Matthews, G., & Roberts, R. D. (2013). Personal factors related to compassion fatigue in health professionals. *Anxiety, Stress & Coping*, 26(6), 595-609.



THANK YOU

