



Exploring attitudes towards mindfulness and self-care among graduate entry medical students

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Joint study between University College Cork (UCC) and University of Limerick (UL) Graduate entry medicine program



Background

- Concerning statistics about medical student levels of psychological distress^{1,2,3,4,5}
- Mindfulness is defined as “*paying attention to the present moment, non-judgementally*”.
- Mindfulness based stress reduction (MBSR)
 - 8-10 week mindfulness training program, focusing on meditation and mindful action⁶
 - Shown to reduce medical students' psychological distress^{6,7,8,9,10}
 - Self-selected Populations



Aim

- To evaluate whether there are significant differences between the attitudes towards mindfulness training among medical students who have received 8 weeks MBSR training as a compulsory part of their medical curriculum (Medical School A) and those who have not (Medical School B)
- Objectives:
 - Compare attitudes towards the place of mindfulness training in medical education generally
 - Compare students own experience of mindfulness training
 - (Extra-curricular in Medical School B)



Methods

- Cross sectional survey design

Population

- All **GEMS** (between years 1-3 inclusive) in Medical School A and B

Sample size:

- Calculated at 95% CI / $p=0.05$ ¹⁴
- Target number of respondents
 - **University A=201** (total reference population=420)
 - **University B=148** (total reference population=240)

Ethics

- **Received** from CREC (**UCC**), April 2016
- **Received** from the EHSREC (**UL**), February 2016



Data Tool & Collection

- **Questionnaire**
 - Newly developed
 - Survey monkey
 - Piloted in DEM population
- **Variables**
 - Socio-demographics
 - **Likert rating scales - 5-point** - measuring:
 - Attitudes towards mindfulness based training in medical education (14-item)
 - Past experience and benefits/harms of mindfulness training (13-item)
 - 5 negatively coded items in each
 - **Open ended questions** – Qualitative data



Statistical Analysis

Descriptive Statistics

- **Descriptives**
 - frequency, range

Main Analysis

- **Mann Whitney U test**
 - Med School A/B, **median and significance**: Likert scored questions
 - Significance $p=0.05$

Secondary Analysis

- **Thematic analysis**
 - Open-ended responses

Characteristics of Population

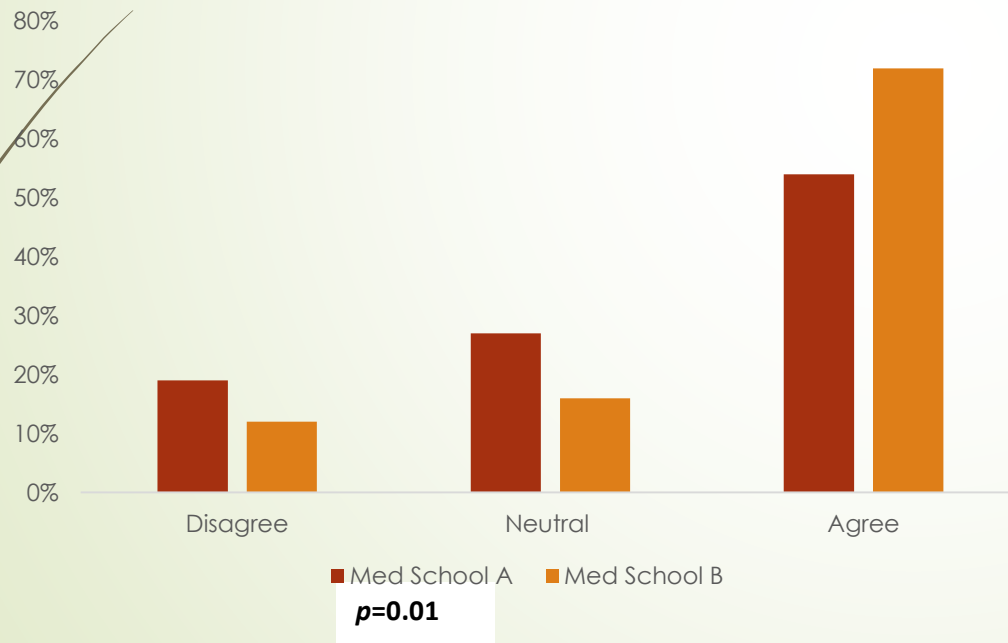
		<u>Med School A</u> (n=89) (RR=21%)	<u>Med School B</u> (n=81) (RR=34%)	p-value
Age	18-24	29 (32.58%)	29 (35.80%)	.66
	25-35	57 (64.04%)	50 (61.73%)	.76
	> 35	3 (3.37%)	2 (2.46%)	.73
Gender	Female	60 (67.42%)	48 (59.26%)	.27
Nation- ality	Irish	56 (62.92%)	41 (50.62%)	.11
Voluntary Mindfulness Practice		38 (42.70%)	38 (46.91%)	.58
Mandatory Curricular Mindfulness		Yes	No	
Mental Health: Good / very good / excellent		71 (79.77%)	65 (80.24%)	.94

Inclusion of Mindfulness training in Medical Curriculum?

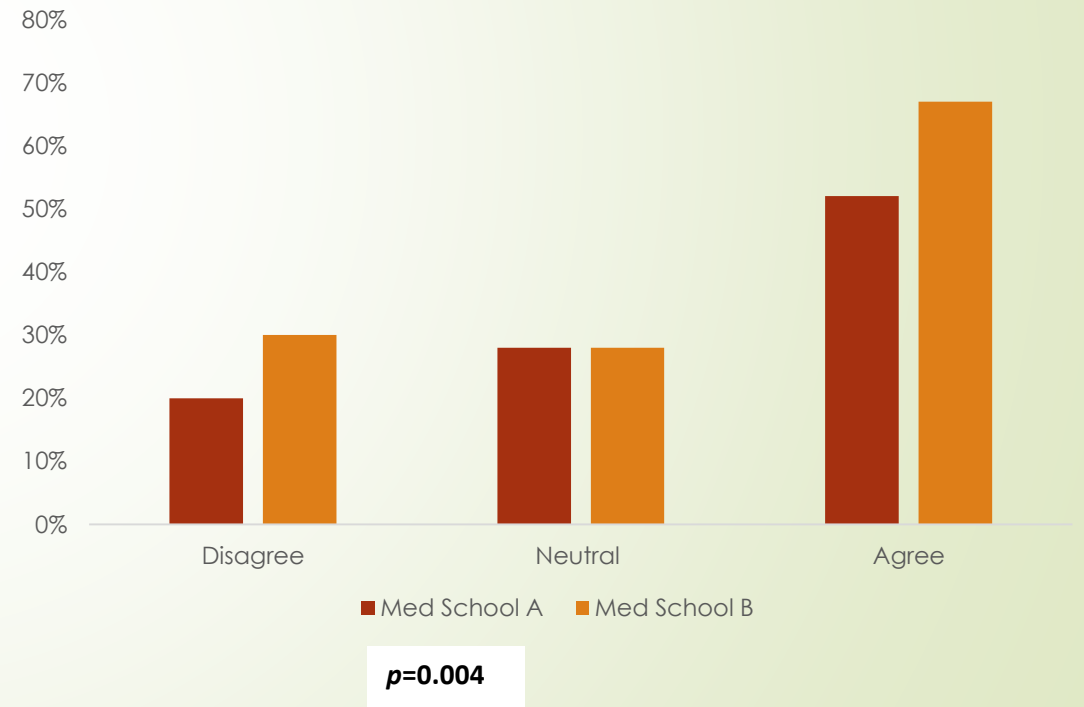
Question: Mindfulness training can...	Disagree/Neutral/Agree Med School A (n=85) (%)	Disagree/Neutral/Agree Med School B (n= 74) (%)	p-value
Help medical students reduce stress	11/15/74	4/14/82	.027
Help medical students rates of depression	20/28/52	3/28/67	.004
Help medical students reduce anxiety	13/17/70	4/18/78	.104
Help medical students to avoid burnout	19/27/54	12/16/72	.010
Help medical students to avoid psychiatric illness	28/37/35	18/39/43	.003
Improve medical students life satisfaction	20/21/59	4/31/65	.155
Be frustrating for medical students	7/25/68	24/38/38	.001
Help Improve doctor patient relationships	19/28/53	10/32/58	.418
Bring up unresolved emotional issues	27/24/49	12/34/54	.547
Can be difficult to engage with	13/12/75	7/24/69	.641
Is unnecessary and not worth pursuing	66/22/12	81/18/1	.017
Help improve life satisfaction in healthy people	11/25/65	5/14/81	.050
Improving life satisfaction in people suffering from chronic illness	6/33/61	3/23/74	.047

Student's attitudes towards the inclusion of Mindfulness training in Curriculum (Medical School A: n=85, Medical School B: n=74)

Mindfulness Training can Reduce Burnout among Medical Students

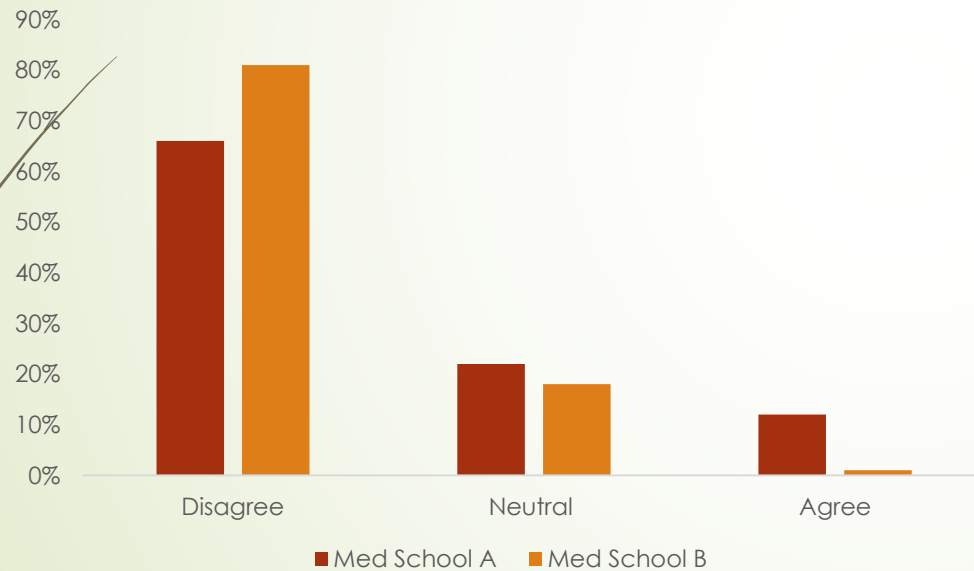


Mindfulness Training can Reduce Depression among Medical Students



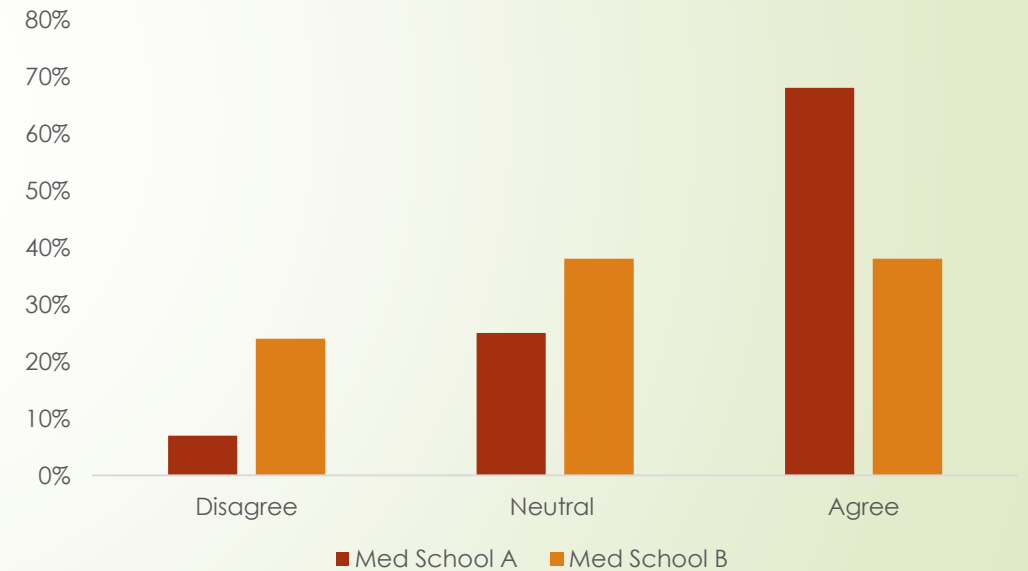
Student's attitudes towards the inclusion of Mindfulness training in Curriculum (Medical School A: n=85, Medical School B: n=74)

Mindfulness Training is Unnecessary and not Worth Pursuing



$p=.017$

Mindfulness Training can be Frustrating for Medical Students

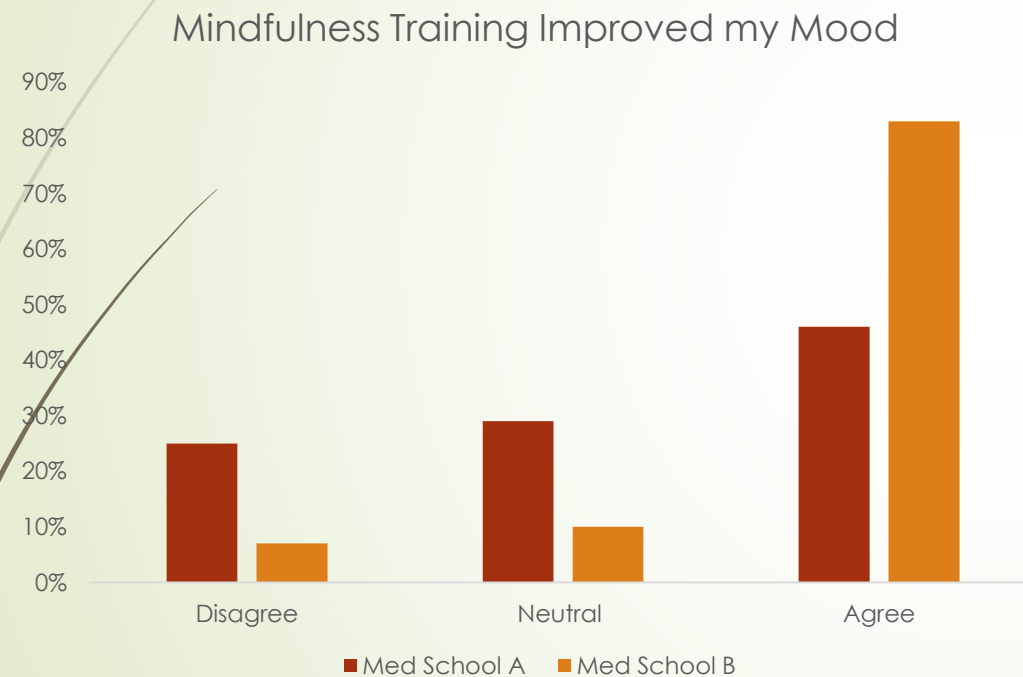


$p=.001$

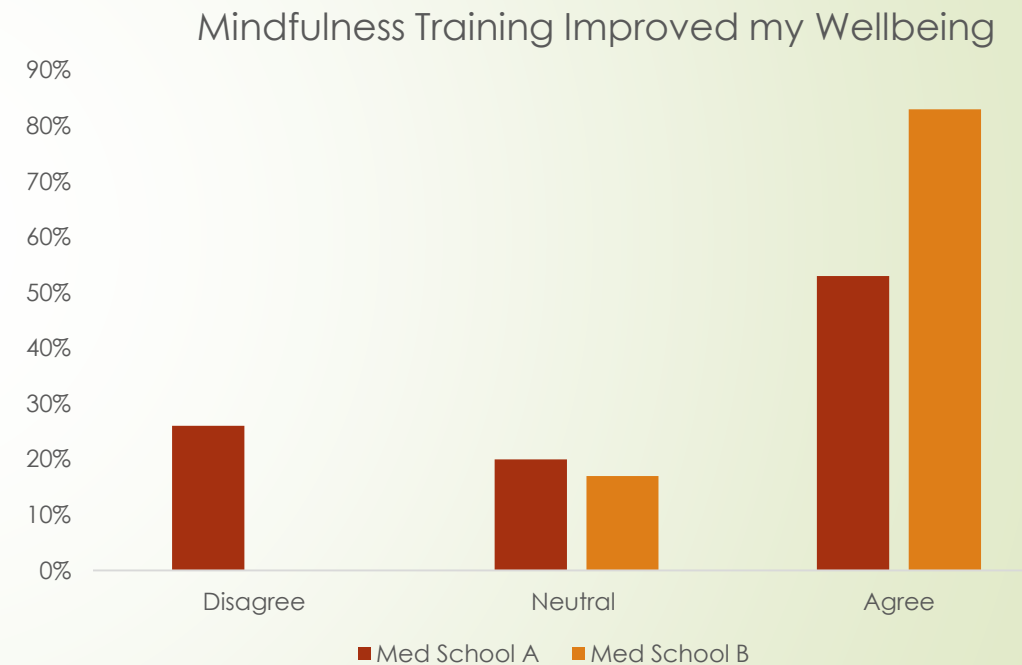
And students who already experienced Mindfulness?

Question: Mindfulness training...	Disagree/Neutral/Agree Med School A (n=73) (%)	Disagree/Neutral/Agree Med School B (n= 30) (%)	P-value
Helped me reduce my anxiety	29/22/49	7/17/76	.005
Helped me improve my mood	25/29/46	7/10/83	.002
Improved my concentration	38/27/35	7/40/53	.004
Improved how I pay attention to the world around me, in the present moment	22/16/62	3/17/80	.005
Is something I found enjoyable	19/16/64	3/13/84	.028
Improved my general well-being	26/20/53	0/17/83	.001
Reduced my stress	33/20/47	7/13/80	.027
I continue to practice mindfulness regularly	47/16/37	17/20/63	.004
Did not affect me positively in any way	75/14/11	83/17/0	.048
Affected me negatively	75/16/8	93/7/0	.001
Stirred up unwanted emotions within me	66/15/19	67/20/13	.971
Mindfulness did not help me, it made me frustrated	66/12/22	83/13/3	.047
I found mindfulness training difficult (-)	53/21/26	27/33/40	.034

Student's Personal Experiences of Mindfulness (Med School A: n=73, Med School B: n=30)



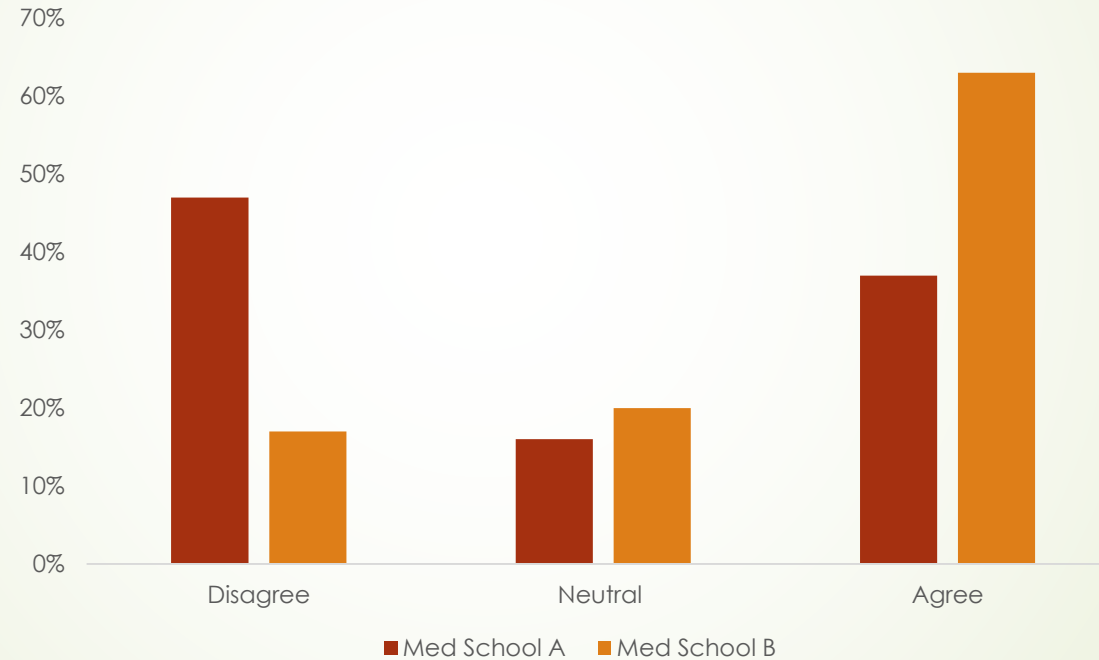
$p=0.002$



$p=0.001$

Student's Personal Experiences of Mindfulness (Med School A: n=73, Med School B: n=30)

I Continue to Practice Mindfulness Regularly



$p=0.004$

Theme	Feedback from Med School A Students
Mindfulness is useful, but should not be compulsory	<p>“I strongly believe mindfulness should be an encouraged part of the training of medical students but I wholly disagree with it being a compulsory part of the curriculum”</p> <p>“Of course being forced to engage in mindfulness based practice/training can be stressful”</p>
Mindfulness suits some and not others	<p>“I agree that it (mindfulness) has its place in self-care but it is not for everyone”</p> <p>“I don't see a mandatory fitness class on the scheduler. I don't think there should be, but I'm trying to illustrate a point. It is one way of helping, but not everyone's way”.</p>

- 19 of 25 University A responses included one or both themes (76%)



Discussion-

Summary of Results

- **Attitudes** towards mindfulness in medical education generally positive;
 - 90% of Med School B students elect to engage with further MBSR in their second year
- **Experience** of mindfulness training was more positive in those who had engaged with mindfulness training **outside** of their **curriculum**.
 - Motivation
 - Higher rates of continued practice
- **Majority** of the Med School A's Qualitative respondents found **mindfulness training beneficial** but believed it should be **elective rather than compulsory**



Discussion



- Strengths:
 - Two schools, non-self selected population
 - Comparability of populations
 - Numbers with extra-curricular mindfulness in Med School B
- Limitations:
 - Response bias
 - Sample size
 - Extra-curricular mindfulness may not always be MBSR
 - A proportion of Med school B students may have very limited knowledge
 - Sub-groups not analysed



Discussion

- Future research
 - Compulsory or Elective?
 - Qualitative research
 - Promote engagement
 - Focus group
 - Type of delivery
 - Long term follow-up in Doctors given mindfulness training as medical students



Thank you

- Questions?



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