

# Pre Exchange Training as a Means of Developing Ethical and Cultural Competencies in Medical Students

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# Disclosure

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**The authors have no conflicts of interest to disclose**

# Background

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IFMSA regroups 1.3 million medical students from 138 member organizations in 127 countries

Official voice to WHO, WMA, WFME, UNESCO

IFMSA organizes the largest medical exchange program in the world



**IFMSA**

International Federation of  
Medical Students' Associations



**SCOPE**

Professional Exchange

**SCORE**

Research Exchange

# Exchanges

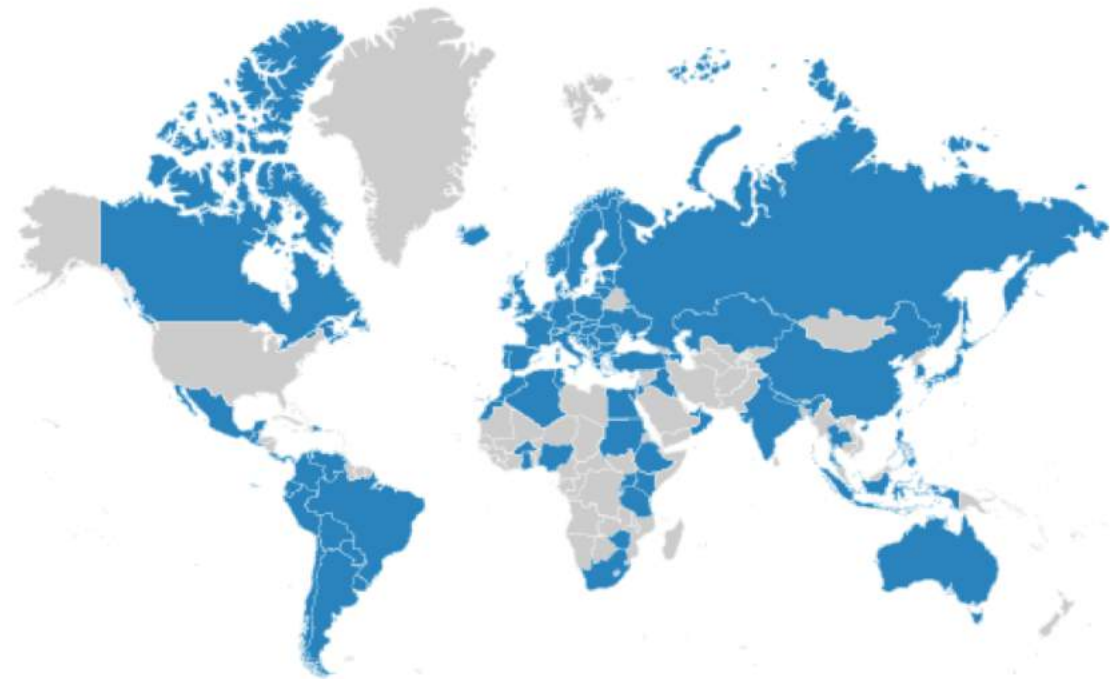
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15,000 students from 98 countries per year participate in an IFMSA exchange

Concrete need for global health education in standard medical curriculum met through exchanges (Battat et al 2010)



SCOPE-active NMOs  
Not shown: Gambia, Grenada, Hong-Kong



## Purpose of Training and Study

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Definition: training before exchange to maximize learning and minimize harm towards self and communities served (Anderson et al 2012)

**Baseline:** 49% countries organize a pre-departure training

As of yet, no standardized training throughout IFMSA

PDTs influence knowledge and competencies (Canadian Intercultural Centre, Canadian Foreign Service Institute 2005)

Very little literature on the **outcomes** of trainings delivered

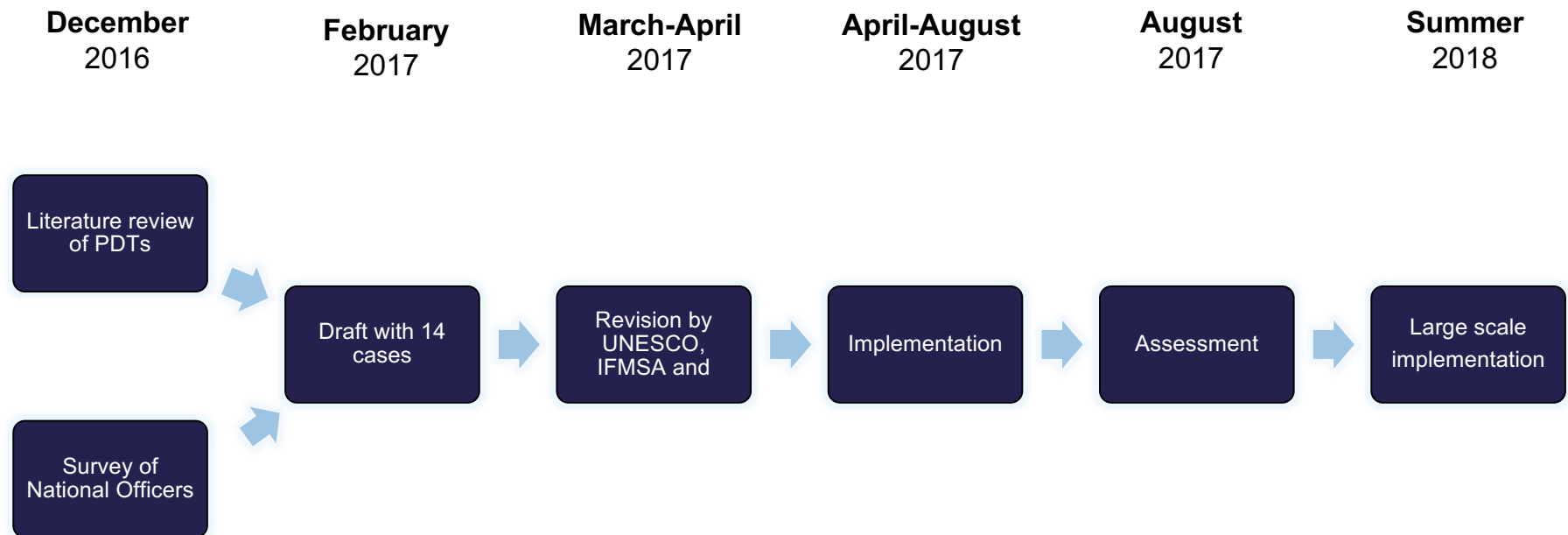
# Objectives

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- 1 Develop a standardized PDT which fosters **cultural competency** and **cultural safety** in medical students
- 2 Assess **the impact** that said training has on medical students' self-reported cultural competencies
- 3 Determine changes to training required before **large scale implementation** and long term evaluation

# Creating and Evaluating the Training

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## Example of Case Scenario – Cultural Competency

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*You are a female first year clerk conducting a gynecology elective in the United Arab Emirates.*

*A veiled pregnant woman and her husband come in for a prenatal follow up appointment. You begin by asking her if she feels the baby moving. Her **husband** answers that she does, and very regularly. You ask the question to the woman, and she nods that everything her husband said was correct.*

*You ask her whether she has noticed any discharge or bleeding. Once again, **her husband answers on her behalf**, and she nods in agreement. In fact, every time you ask a question, her husband answers on her behalf.*

*You try to redirect your gaze towards the woman, **who does not seem to be distressed at all.***



## Example of Case Scenario – Cultural Competency

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### How would you address this situation?

- A. Ask the husband to step outside of the room so you can question your patient alone.
- B. Ask to leave the room, and confront your supervisor. Tell him or her that you suspect an abusive relationship since the woman will not talk in the presence of her husband.
- C. Continue directing your questions to the wife and hope that she begins answering questions instead of her husband.
- D. Continue the interview as is - the woman does not appear to be distressed by the situation.

# Implementation

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**General call sent through National Member Organization (NMO) server**

**8 countries in first trial phase:**  
Sweden, Brazil, Catalonia, Bulgaria, Austria, the Netherlands, Singapore

Small Working Group on Implementation held in Budva, Montenegro

Presented at IFMSA General Assembly in Arusha, Tanzania with Professor Russell D'Souza (UNESCO Chair of Bioethics) to over **100 students participants**



# Assessment Methodology

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## Pre- and post-test assessment with Likert Scale

### Evaluation Form: 18 questions

- 5 for Medical Ethics
- 5 for Cultural Competencies
- 5 for Exceeding Level of Skill
- 3 for Research Ethics

Pre-tested on 10 students of varying national and linguistic backgrounds for clarity; no changes made

	1) Strongly Disagree	2) Disagree	3) Neutral	4) Agree	5) Strongly Agree
I feel comfortable in providing a physical exam for a patient of a different culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# Statistical Analysis

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Statistical analysis performed using **SPSS** (v.21, IBM Inc.)

Related samples Wilcoxon-Signed Rank Tests were used to compared Likert scores before and after the PDT for each competency

Participants aggregated into 2 groups

- ❑ Improvement in overall scores vs. no change/worse scores
- ❑ Chi<sup>2</sup> Tests were used to compare these groups to independent categorical variables

# Results – Participants Breakdown

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## Number of participants : 104

- ❑ Cohort A: given to students before exchange from the first preliminary phase
- ❑ Cohort B: given to students attending the IFMSA GA in Tanzania
- ❑ 33 countries from 5 regions

## 73% had prior ethical training

## Proportion of medical school completed

- ❑ 0-25% : 5.8%
- ❑ 25.1-50% : 32.7%
- ❑ 50.1 – 75% : 28.8%
- ❑ 75.1 – 100% : 30.8%

## Results

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### **Statistically significant improvement in self-rated competencies in all domains**

- ❑ With the exception of confidentiality and consent in research

### **Examples of domains assessed include**

- ❑ Questioning patient from different culture
- ❑ Voicing level of training
- ❑ Recognizing personal cultural bias
- ❑ Principle of justice in research

**There was no difference depending on level of medical training or prior ethical training**

## Conclusion

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- Concrete need for PDT before exchange due to nature of electives abroad
- Successful development and implementation of IFMSA/UNESCO PDT
- Benefits medical students regardless of training
- Future plans: wide scale implementation of PDT within IFMSA

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**Thank you!**



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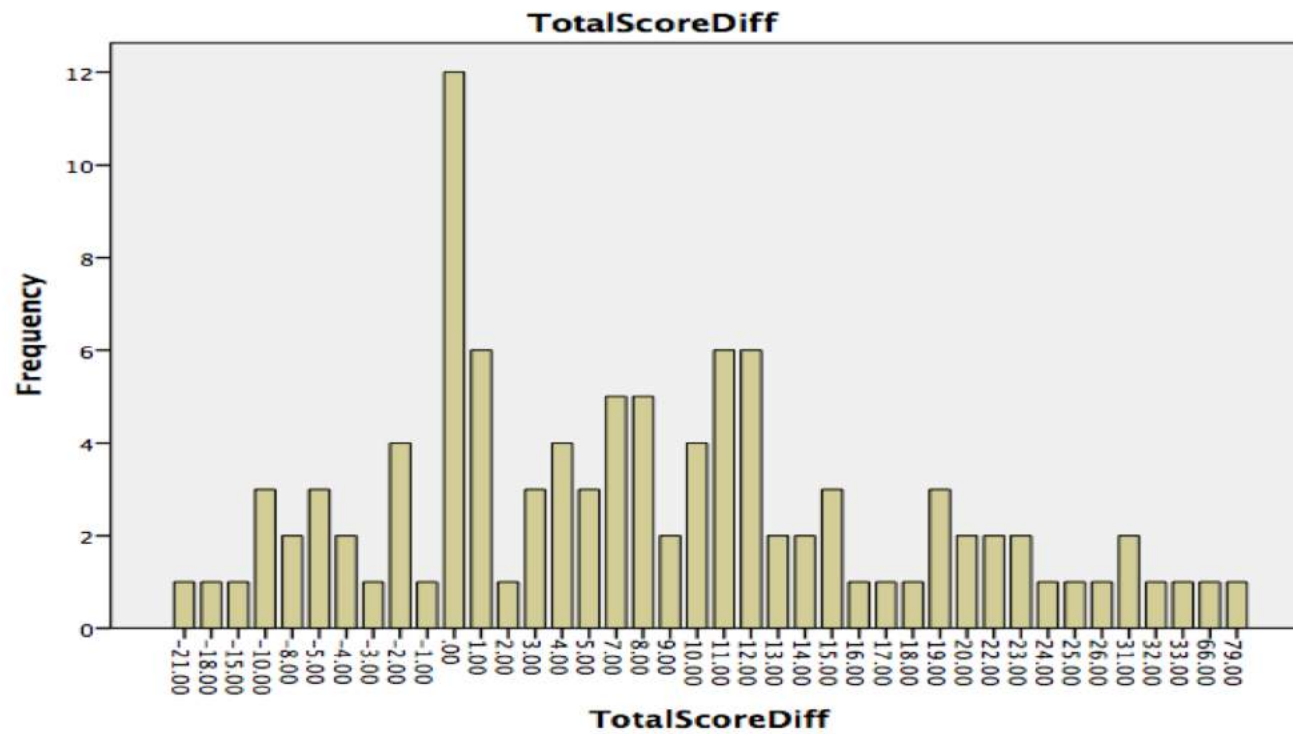
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# Results Tables

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Item	Pre-test scores Median (Range)	Post-test scores Median (Range)	Change in score Median (Range)	P value	Number of positive changes	Number of negative changes	Number of unchanged scores
Principles of medical ethics	4 (1 ; 5)	5 (2 ; 5)	0 (-2 ; 4)	<0.001	33	4	67
Consent	4.5 (1 ; 5)	5 (3 ; 5)	0 (-1 ; 4)	0.001	27	9	68
Aptitude	4 (1 ; 5)	4 (1 ; 5)	0 (-3 ; 4)	<0.001	48	10	46
Confidentiality	5 (1 ; 5)	5 (2 ; 5)	0 (-2 ; 4)	0.008	24	9	71
Social media	5 (1 ; 5)	5 (2 ; 5)	0 (-1 ; 4)	0.033	23	15	66
Personal cultural bias	4 (1 ; 5)	5 (3 ; 5)	0 (-1 ; 4)	<0.001	40	8	56
Patient History	4 (1 ; 5)	5 (2 ; 5)	0 (-1 ; 3)	0.001	24	7	73
Physical exam	4 (1 ; 5)	4.5 (3 ; 5)	0 (-2 ; 4)	0.002	26	9	69
Medical Explanations	4 (1 ; 5)	5 (2 ; 5)	0 (-1 ; 3)	<0.001	36	11	57
Treatment plan	4 (2 ; 5)	5 (1 ; 5)	0 (-2 ; 3)	<0.001	35	10	59
Voicing level of training	4 (1 ; 5)	4 (3 ; 5)	0 (-2 ; 4)	<0.001	42	11	51
Voicing lack of skill	4 (1 ; 5)	4 (2 ; 5)	0 (-3 ; 3)	<0.001	46	13	45
Refusing to do procedure	4 (1 ; 5)	5 (1 ; 5)	0 (-4 ; 4)	0.002	34	15	55
Voicing lack of language	4 (1 ; 5)	4 (2 ; 5)	0 (-3 ; 4)	0.002	39	14	51
Voicing expectations	4 (1 ; 5)	4 (3 ; 5)	0 (-1 ; 4)	<0.001	40	7	57

<b>Consent in research</b>	<b>4</b> (1 ; 5)	<b>5</b> (2 ; 5)	<b>0</b> (-2 ; 4)	<b>0.102</b>	<b>24</b>	<b>14</b>	<b>66</b>
<b>Social Justice in Research</b>	4 (1 ; 5)	4 (2 ; 5)	0 (-2 ; 4)	<0.001	41	12	51
<b>Confidentiality in research</b>	5 (1 ; 5)	5 (2 ; 5)	0 (-3 ; 4)	0.058	21	13	70
<b>Awareness Main Ethical and Cultural Challenges</b>	4 (1 ; 5)	5 (3 ; 5)	0 (-1 ; 3)	<0.001	37	9	58
<b>Preparedness Main Ethical Challenges</b>	4 (1 ; 5)	5 (3 ; 5)	0 (-1 ; 3)	<0.001	40	10	54
<b>Awareness Exchange Ethics</b>	4 (1 ; 5)	5 (2 ; 5)	0 (-3 ; 4)	<0.001	49	7	48
<b>Preparedness Exchange Ethics</b>	4 (1 ; 5)	5 (3 ; 5)	0 (-1 ; 3)	<0.001	51	10	43
<b>Ethics Education Importance</b>	5 (1 ; 5)	5 (3 ; 5)	0 (-2 ; 4)	0.001	29	9	66

# Results (Chi Squared)

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Independent variables	Unchanged or worse scores (n=31)	Improved scores (n=73)	P value
<b>Prior ethical training</b>			0.752
- Yes	22 (71.0%)	54 (74.0%)	
- No	9 (29.0%)	19 (26.0%)	
<b>Proportion medical school completed</b>			0.802
- 0-25%	2 (6.5%)	4 (5.5%)	
- 25.1-50%	8 (25.8%)	26 (35.6%)	
- 50.1-75%	9 (29.0%)	21 (28.8%)	
- 75.1-100%	11 (35.5%)	21 (28.8%)	