Mental Health First Aid training (MHFA): Effects on mental health literacy and wellbeing in pharmacy students

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Introduction

- According to the World Health Organization (WHO), in 2019 there were about 970 million people living with a mental disorder worldwide.[1]
- Secondary to the COVID-19 pandemic, people living with anxiety and depression disorders have increased significantly in 2020.[1]
- National Alliance on Mental Illness states that anxiety and depression are among the top concerns for many college students.[2]
- In addition, many pharmacists report a major barrier for not providing mental health care is lack of education, this proposes an opportunity for schools of pharmacy to incorporate mental health training into their curricula.[3]
- Healthcare professionals such as pharmacists tend to have a negative perspective towards patients with mental health illness which may affect treatment outcomes.[4,5,6]
- Mental health first aid training is an internationally acclaimed and evidence-based program that helps to teach and educate individuals on identifying, understanding, and responding to someone experiencing mental health crisis.[7]

Objectives

- The primary objective is to evaluate the degree to which MHFA training changes mental health literacy and wellbeing, utilizing the mental health literacy scale (MHLS) and the Warwick-Edinburgh mental wellbeing scale (WEMWBS), respectively.
- The secondary objective is to assess students' reported confidence levels to provide mental health care change after the intervention.

Methods

- Pharmacy students voluntarily elected to participate in the MHFA training program.
- The MHLS and WEMWBS were utilized to assess mental health literacy and mental wellbeing, respectively, of the pharmacy students both before and after the completion of the 8-hour MHFA training program.
- Confidence level was assessed on a Likert scale pre- and post-intervention.

Educational Training and Setting

- **Population/intervention:** All pharmacy students (P1-P3) were invited to participate in an 8-hour virtual MHFA training course offered by Dignity Health.
- **Measures:** Pre- and post-course surveys were administered to participants to assess mental health literacy (MHLS) and wellbeing (WEMWBS). For the MHLS and WEMWBS, all pre-intervention questionnaire results will be utilized to measure the MHL and wellbeing of the group, respectively, but only the participants with completed post-intervention surveys will be used to calculate change.
- **Statistics:** Descriptive statistics were used to describe baseline characteristics. Pre- and post-median differences were compared using Wilcoxon signed-rank test. Statistical significance was set a priori as $P \leq .05$.

Results

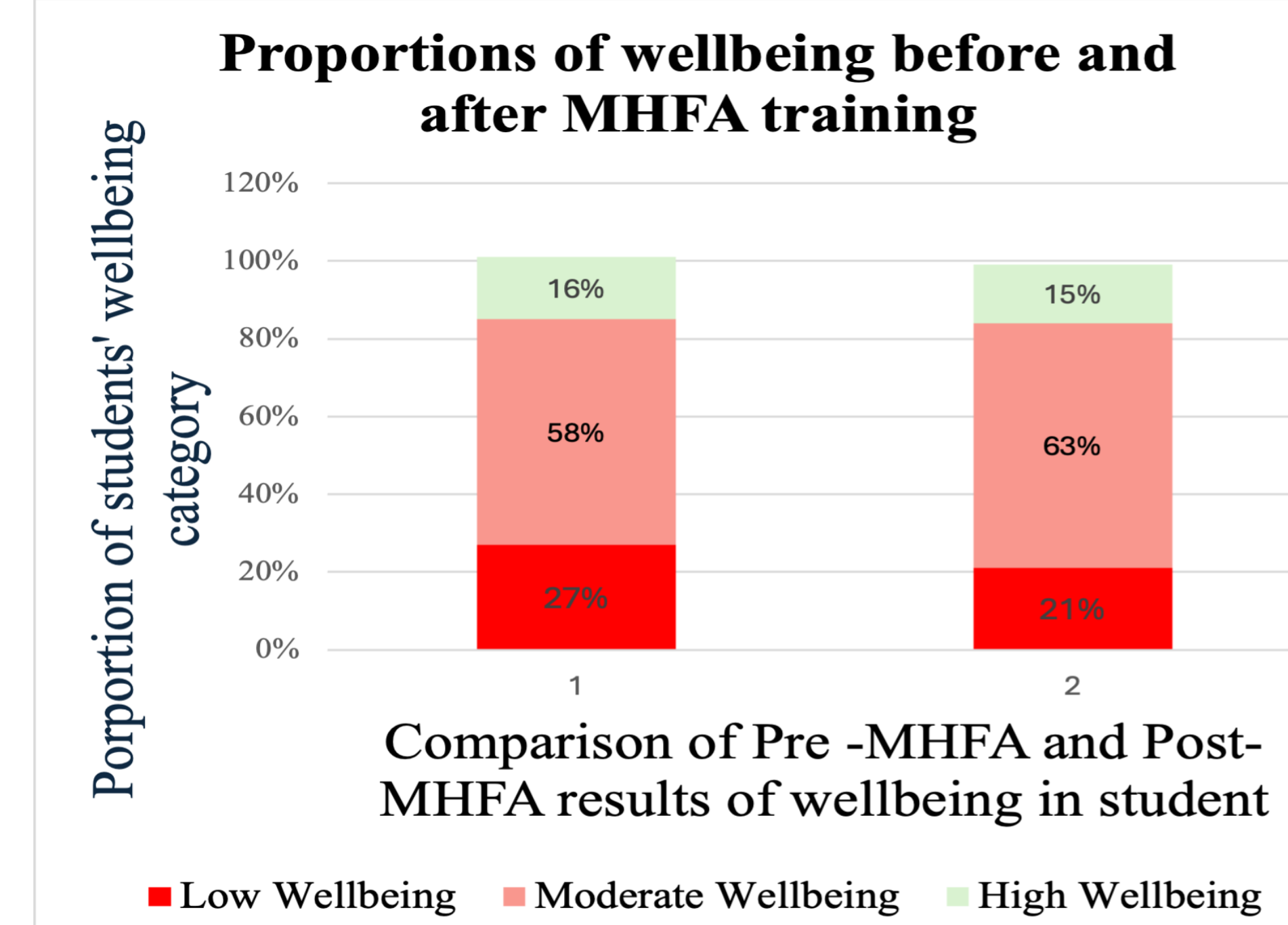| Baseline Characteristics			
	Pre-MHFA Survey (n = 45)	Virtual Course (n = 35)	Post-MHFA Survey (n = 19)
P1	5	Blinded	1
P2	23	Blinded	11
P3	17	Blinded	7
Total	45	Blinded	19

Figure 1: The proportions of wellbeing before compared to after the MHFA training.
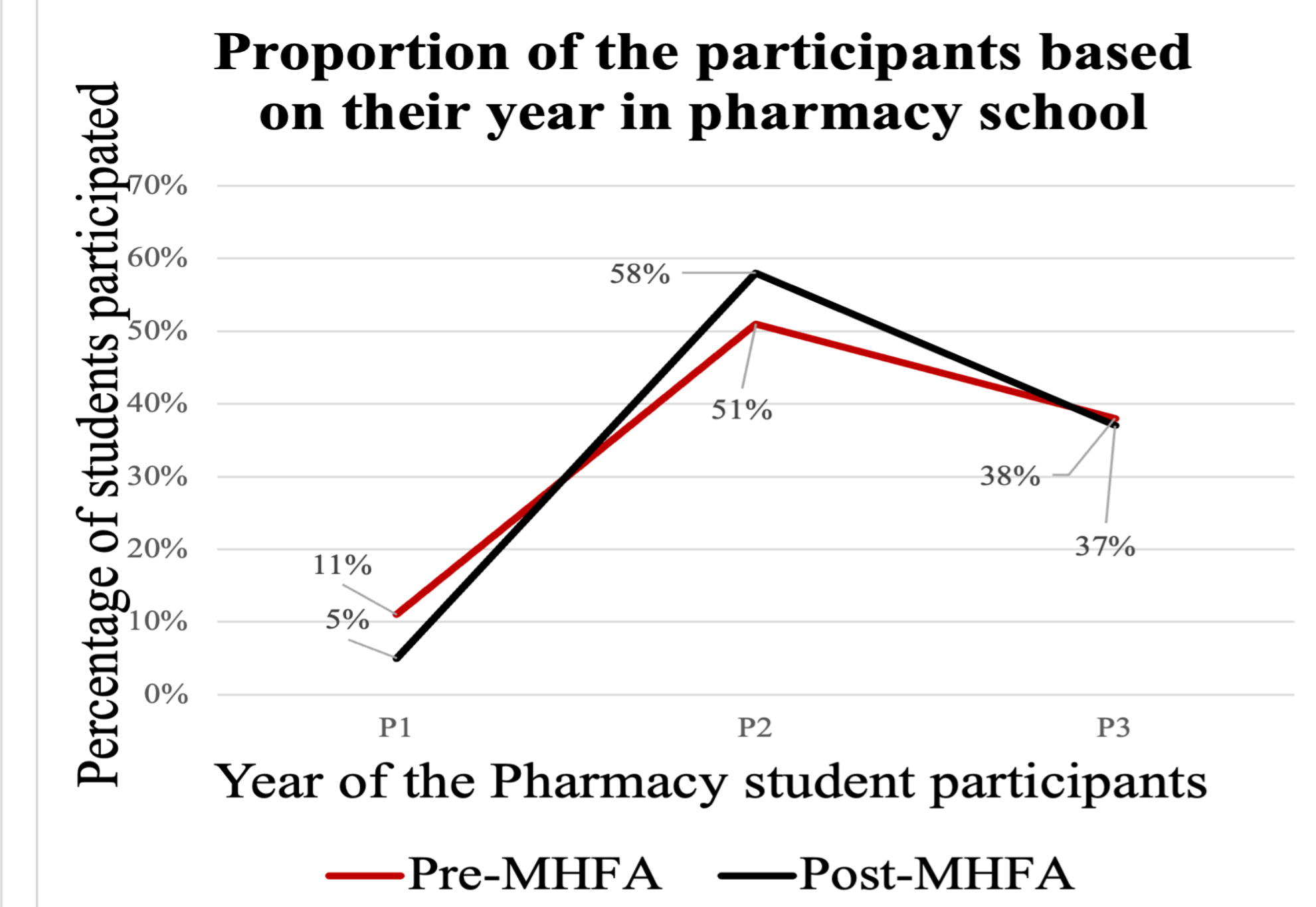

Figure 2: The proportion of the participants based on their year in pharmacy school
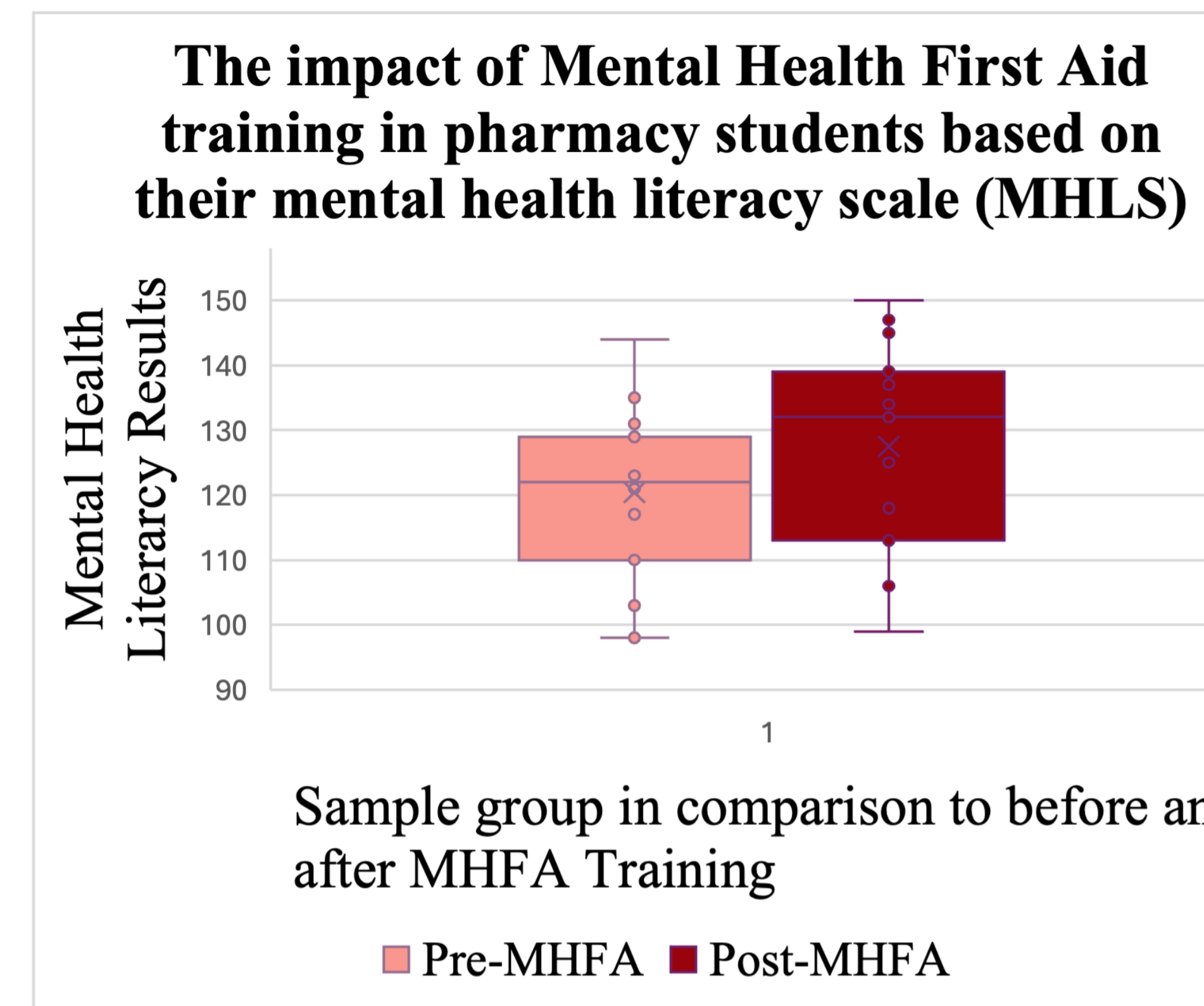

Figure 3: The impact of Mental Health First Aid training in pharmacy students based on their MHLS results
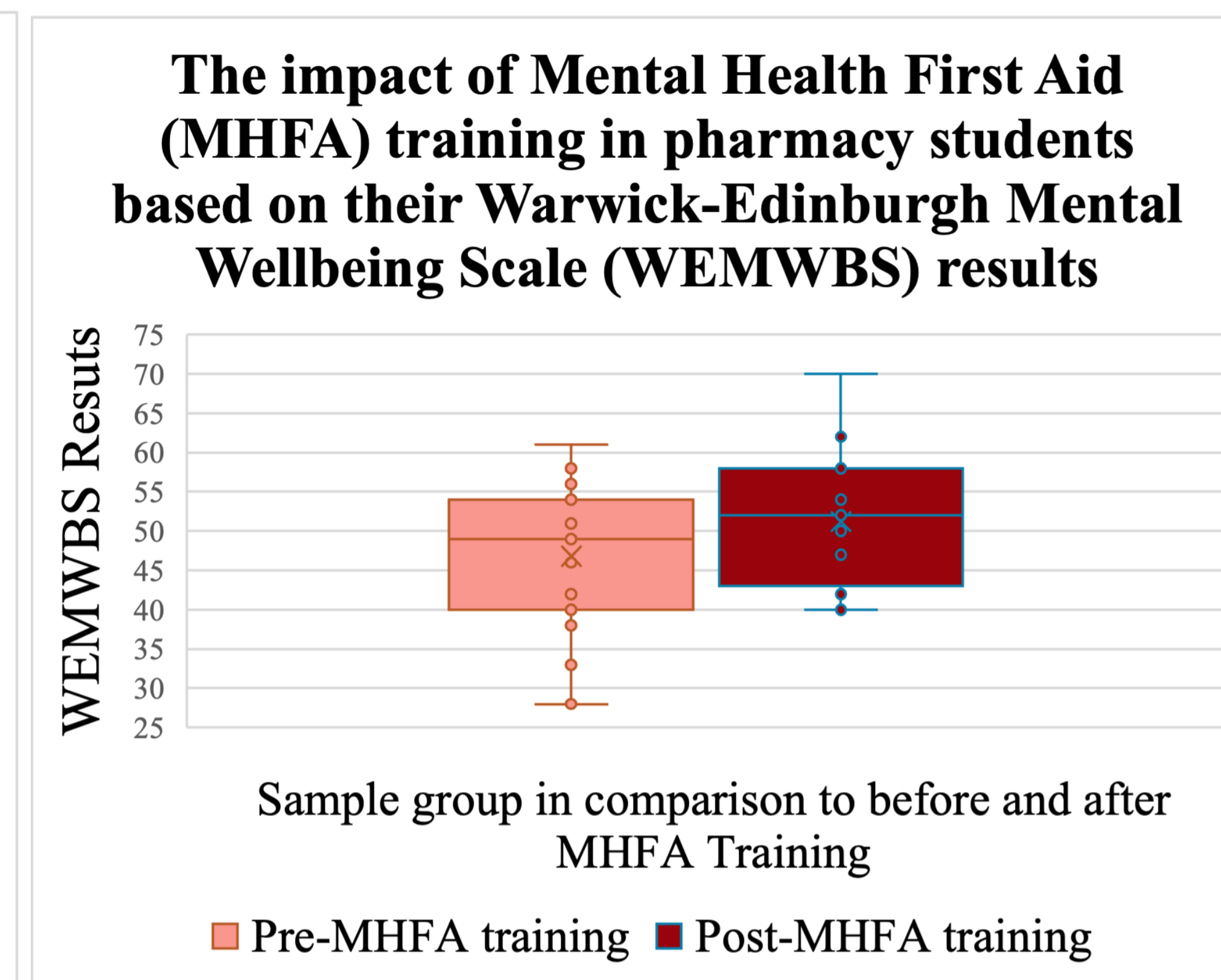

Figure 4: The impact of Mental Health First Aid training in pharmacy students based on their WEMWBS results

- Forty-five students participated in the pre-MHFA course survey, 35 students attended the 8-hour virtual course, and 19 students completed the post-MHFA course survey.
- The MHLS pre-intervention median score was 122 (98-144), and post-intervention median score was 132 (99-150) with a p-value of 0.01. The standard deviation was 12.48 for pre-MHFA and 15.08 post-MHFA.
- The WEMWBS pre-intervention median was 49, and the post-intervention median was 52 (p<0.017). The pre-MHFA standard deviation was 9.8 and Post-MHFA was 8.6.
- 11 of 19 participants (57.9%) had a meaningful positive change, which meant increase of 3 or more on the WEMWBS scale after training completion. 3 of 19 participants (15.7%) had a meaningful negative change which meant a decrease of 2 or more on the WEMWBS after training completion.
- The confidence level pre-intervention was a median of 5 (mean = 4.53) and post-intervention median was 5 (mean = 4.63) with a p-value of 0.317.

Discussion

- This interventional study showed that MHFA training resulted in a statistically significant improvement in both mental health literacy and wellbeing in pharmacy students (Figures 3 and 4).
- In addition, the proportion of participants with moderate wellbeing increased and the proportion of participants with low wellbeing decreased after the intervention (Figure 1).
- The confidence to help a patient was assessed separately from MHLS and wellbeing, utilizing a Likert scale from 1-5. The MHFA training did not result in a change in confidence level. However, the level of confidence to provide mental healthcare was high pre-intervention.
- This study does have limitations, including survey fatigue and a high rate of drop out. In addition, this is a small sample size so it is difficult to ascertain if the same changes would be seen on a larger scale.
- Future studies should administer the intervention in the beginning of the year, potentially during orientation, to help increase participation while coursework burden is lighter.

Conclusion

- Given the extent of the mental health burden and the need for improved mental health care, consideration should be placed on delivering mental health training to pharmacy students.
- This interventional study showed that MHFA training benefitted students in their mental health literacy and wellbeing.
- As future healthcare professionals, it is imperative for pharmacy students to have mental health literacy and tools for wellbeing to provide the best, complete care to patients.

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