
IMPACT OF MIND-BODY INTERVENTIONS ON PHYSICAL AND PSYCHOLOGICAL OUTCOMES IN ADULT REFUGEES: **A SYSTEMATIC REVIEW**

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OBJECTIVES

By the end of this presentation, the audience will:

- Understand the definition of mind-body interventions (MBI) and the different types of therapy that fall under this category
- Understand the potential benefits that different MBIs may have on refugee quality of life

INTRODUCTION

- Refugees experience prolonged emotional and physical stressors
- Causes of stress:¹
 - Trauma, war, or violence in their home country
 - Difficult journeys to their new country.
- Long-term health implications resulting from stress:²⁻³
 - PTSD
 - Anxiety
 - Depression
- 20 million people make up the worldwide refugee population³
 - Likely to increase in upcoming years.²

DEFINITIONS

Refugee

- A person who has fled their country because they are at risk of human rights violations and persecution there.⁶

Asylum Seeker

- A person who is seeking protection from persecution but hasn't been legally recognized as a refugee and is waiting to receive a decision on their asylum claim.⁶

MIND-BODY INTERVENTIONS (MBI)

- Interventions designed to integrate mental or emotional state with movement or physical state of the body⁴
- Aid in emotional regulation⁵
- Provide coping strategies for symptoms of trauma and stress⁵

EXAMPLES OF MIND BODY INTERVENTIONS⁴

- Yoga
- Tai chi
- Meditation
- Progressive muscle relaxation
- Guided imagery
- Biofeedback
- Cognitive behavioral therapy



PURPOSE

The purpose of this systematic review was to evaluate the impact of MBI on physical and psychological outcomes in adult refugees.

METHODS

METHODS

Databases

- CINAHL
- ProQuest
- PubMed
- ScienceDirect

Search Terms

(refugee* OR “displaced person*”)

AND

(“mind body practice*” OR “mind body therapy” OR “mindfulness-based physical activity” OR “mindfulness-based exercise*” OR yoga OR “tai chi” OR “body awareness” OR breath* OR mindful*)

METHODS

Search Limits

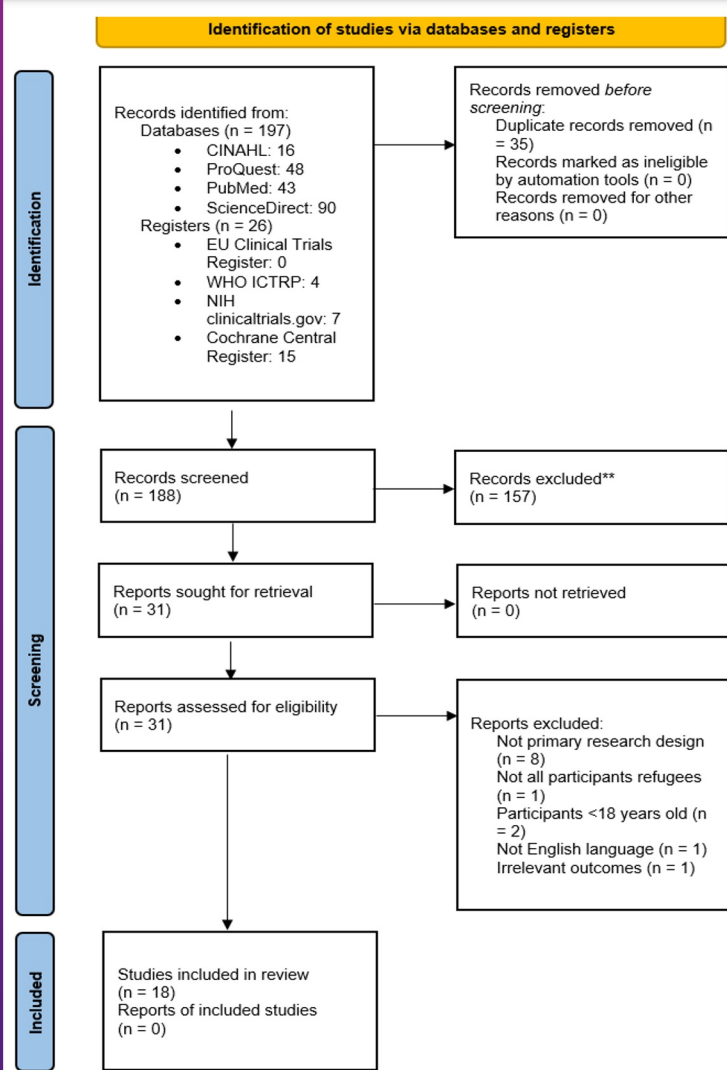
- English language
- Peer-reviewed
- Human subjects
- 2012-2022

Selection Criteria

- Refugees or asylum seekers who received MBI
- Ages 18+
- All genders
- No comorbidity exclusions
- Physiological and psychological outcomes
- No co-intervention exclusions
- All primary research designs

RESULTS

PRISMA



RESULTS

- 223 studies screened
- 18 met selection criteria:
 - 11 quantitative
 - 5 qualitative
 - 2 mixed methods
- Samples ranged from 1-825 subjects (n=3,162)
- No adverse events reported

MBI TYPES	NUMBER OF STUDIES
Cognitive behavioral therapy (CBT)	5
Basic body awareness therapy (BBAT)	3
Social-emotional wellbeing with psychoeducation/breathing/yoga (SEW)	2
Dance/movement therapy (DMT)	2
Acupressure and breathing (AB)	1
Sport/exercise (SE)	1
Physiotherapy activity and awareness (PAAI)	1
Mindfulness-based trauma recovery (MBTR)	2
Guided self-help (GSH)	1

MMAT SCORES

MMAT scores ranged 40-100% quality criteria met (OCM) (avg=66.67%).

ARTICLE AUTHORS	RESEARCH METHOD	MMAT SCORE
Aizik-Reebs A, Amir I, Yuval K, Hadash Y, Bernstein A ⁷	Quantitative Randomized	40%
Aizik-Reebs A, Yuval K, Hadash Y, Gebremariam SG, Bernstein A ⁸	Quantitative Randomized	40%
Buhmann C, Andersen I, Mortensen EL, Ryberg J, Nordentoft M, Ekstrøm M ⁹	Quantitative Non-randomized	60%
Buhmann CB, Nordentoft M, Ekstroem M, Carlsson J, Mortensen EL ¹⁰	Quantitative Randomized	40%
Buhmann CB, Nordentoft M, Ekstroem M, Carlsson J, Mortensen EL ¹¹	Quantitative Randomized	60%

MMAT SCORES

ARTICLE AUTHORS	RESEARCH METHOD	MMAT SCORE
Garcia-Medrano S, Panhofer H ¹²	Qualitative	100%
Hasha W, Igland J, Fadnes LT, et al ¹³	Mixed Methods	40%
Kananian S, Ayoughi S, Farugie A, Hinton D, Stangier U ¹⁴	Quantitative Non-randomized	40%
Ley C, Rato Barrio M, Koch A ¹⁵	Qualitative	100%
Madsen TS, Carlsson J, Nordbrandt M, Jensen JA ¹⁶	Qualitative	100%
Nordbrandt MS, Sdonne C, Mortensen EL, Carlsson J ¹⁷	Quantitative Randomized	60%
Poudel-Tandukar K, Jacelon CS, Poudel KC, et al ¹⁸	Quantitative Non-randomized	100%

MMAT SCORES

ARTICLE AUTHORS	RESEARCH METHOD	MMAT SCORE
Poudel-Tandukar K, Jacelon CS, Rai S, Ramdam P, Bertone-Johnson ER, Hollon SD ¹⁹	Quantitative Non-randomized	100%
Sander R, Laugesen H, Skammeritz S, Mortensen EL, Carlsson J ²⁰	Quantitative Non-randomized	60%
Stade K, Skammeritz S, Hjortkjaer C, Carlsson J ²¹	Mixed Methods	40%
Sullivan J, Thorn N, Amin M, Mason K, Lue N, Nawzir M ²²	Qualitative	60%
Tol WA, Leku MR, Lakin DP, et al ²³	Quantitative Randomized	60%
Verreault K ²⁴	Qualitative	100%

RESULTS

- **Impairment-level outcomes:**

- Depression
- Anxiety
- PTSD
- Mood
- Pain
- Stress
- Body awareness
- Self-efficacy

- **Functional-level outcomes:**

- Sleep function

- **Participation-level outcomes:**

- Quality of life
- Wellbeing

QUANTITATIVE RESULTS

MBI	IMPAIRMENT	FUNCTION	PARTICIPATION
MBTR	X		
SEW	X		
CBT	X	X	
GSH	X	X	X
BBAT	X	X	X

QUALITATIVE RESULTS

MBI	IMPAIRMENT	FUNCTION	PARTICIPATION
SEW	X		X
BBAT	X	X	X
DMT	X		X
AB	X	X	X
PAAI		X	X

CONCLUSION

Low to high level evidence supports using MBI with adult refugees to improve physical and psychological outcomes.

LIMITATIONS

- Widely varied outcome measures and protocols
- Difficulty with blinding of participants and/or researchers due to nature of interventions

FUTURE RESEARCH

- Determining optimal treatment parameters
- Best practice for integrating MBI into physical therapy practice

CLINICAL RELEVANCE

- MBI are safe, feasible and beneficial for adult refugees
- PTs may incorporate MBI within the scope of practice such as:
 - Body awareness
 - Dance/movement therapy
 - Breathing
 - Sport/exercise
 - Physiotherapy activity and awareness
- PTs may provide education and referrals for MBI to enhance refugee quality of life and physical/mental health across ICF domains

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QUESTIONS?
