



# **Efficacy of Visual Guided Mindfulness in reducing symptom burden associated with cancer treatment (chemotherapy)**

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**ACADEMY OF CONSULTATION-LIAISON PSYCHIATRY**

Psychiatrists Providing Collaborative Care Bridging Physical and Mental Health

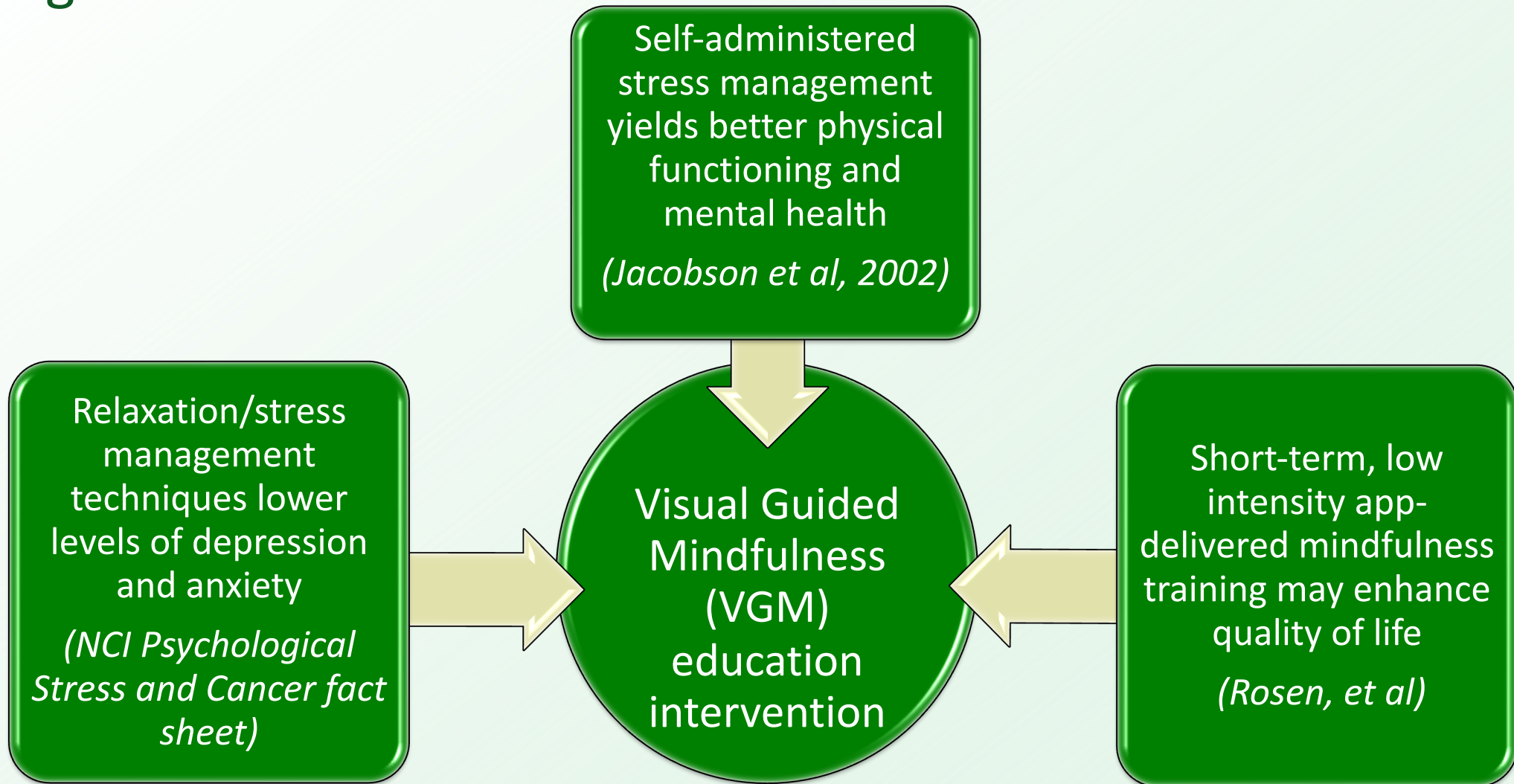


CLP 2018

## Disclosure: Aileen Moreno, LCSW

With respect to the following presentation, there has been no relevant (direct or indirect) financial relationship between the party listed above (and/or spouse/partner) and any for-profit company which could be considered a conflict of interest.

# Background



# Objectives

Primary

- To evaluate the efficacy of VGM intervention in reducing overall symptom burden for patients undergoing outpatient chemotherapy.

Secondary

- To identify which individual symptom(s), if any, and the extent to which, each one is effectively reduced by VGM and serve as positive treatment predictors for the use of VGM in chemotherapy-related symptom reduction.

# Eligibility Criteria

## Inclusion

Male / Female
at least 18 years of age
any stage of cancer
completed at least 1 cycle of chemotherapy

## Exclusion

co-morbid psychotic disorder
active suicidal ideations, plan or intent
active substance abuse disorder
RX only oral chemotherapy or completed chemo

# Methods

Enroll a minimum of 32 outpatients under the care of Psycho-oncology  
(to-date 15 patients have been enrolled)

## **Visual Guided Mindfulness (VGM) training:**

Deep Breathing Exercise

Progressive Muscle Relaxation Exercise

## **VGM video library access (Reimaginewell):**

iPad during infusion

Remote via personal computer or smart device

## **Edmonton Symptom Assessment Scale (ESAS-r):**

Evaluate 9 chemotherapy-related symptoms

Baseline, training and intervention over 1-2 cycles

# Clinical Assessment Tool: Edmonton Symptom Assessment Scale (ESAS-r)

## Physical Symptom cluster (0/60):



- Pain
- Tiredness
- Drowsiness
- Nausea
- Lack of Appetite
- Shortness of Breath

## Emotional Symptom cluster (0/20):

- Depression
- Anxiety

## Global item (0/10):

- Wellbeing

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**Edmonton Symptom Assessment System:**  
(revised version) (ESAS-R)

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**Please circle the number that best describes how you feel NOW:**

No Pain	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Pain
<hr/>												
No Tiredness <small>(Tiredness = lack of energy)</small>	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Tiredness
<hr/>												
No Drowsiness <small>(Drowsiness = feeling sleepy)</small>	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Drowsiness
<hr/>												
No Nausea	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Nausea
<hr/>												
No Lack of Appetite	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Lack of Appetite
<hr/>												
No Shortness of Breath	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Shortness of Breath
<hr/>												
No Depression <small>(Depression = feeling sad)</small>	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Depression
<hr/>												
No Anxiety <small>(Anxiety = feeling nervous)</small>	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Anxiety
<hr/>												
Best Wellbeing <small>(Wellbeing = how you feel overall)</small>	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Wellbeing
<hr/>												
No _____ <small>Other Problem (for example constipation)</small>	0	1	2	3	4	5	6	7	8	9	10	Worst Possible _____

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Patient's Name \_\_\_\_\_

Date \_\_\_\_\_ Time \_\_\_\_\_

Completed by (check one):

Patient

Family caregiver

Health care professional caregiver

Caregiver-assisted

**BODY DIAGRAM ON REVERSE SIDE**

**ESAS-r**  
Revised November 2006

# Clinical Protocol Timeline

Visit #	Intervention/Assessment	Description
1	Baseline with VGM training	<ul style="list-style-type: none"><li>▪ Baseline symptom assessment (ESAS-r) done</li><li>▪ VGM training provided</li><li>▪ Post-VGM training symptom assessment (ESAS-r) done</li><li>▪ VGM practice log provided</li></ul>
2	During chemotherapy infusion	<ul style="list-style-type: none"><li>▪ VGM during chemotherapy infusion</li><li>▪ Symptom assessment (ESAS-r) during chemotherapy infusion done</li></ul>
3	Post-chemotherapy Day 2-5	<ul style="list-style-type: none"><li>▪ Phone call to review VGM practice log</li><li>▪ Post-chemotherapy Day 2-5 symptom assessment (ESAS-r) done</li></ul>



# Training session



# ReimagineWell

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### Space

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# Outcome Measures

Primary

- Total Symptom Distress Scores (TSDS) on ESAS-r based on symptom intensity categorized as none (0), mild (1-3), moderate (4-6) and severe (7-10). (*Hui et al, 2017*)
- Treatment responders = change from baseline severity by at least one category.

Secondary

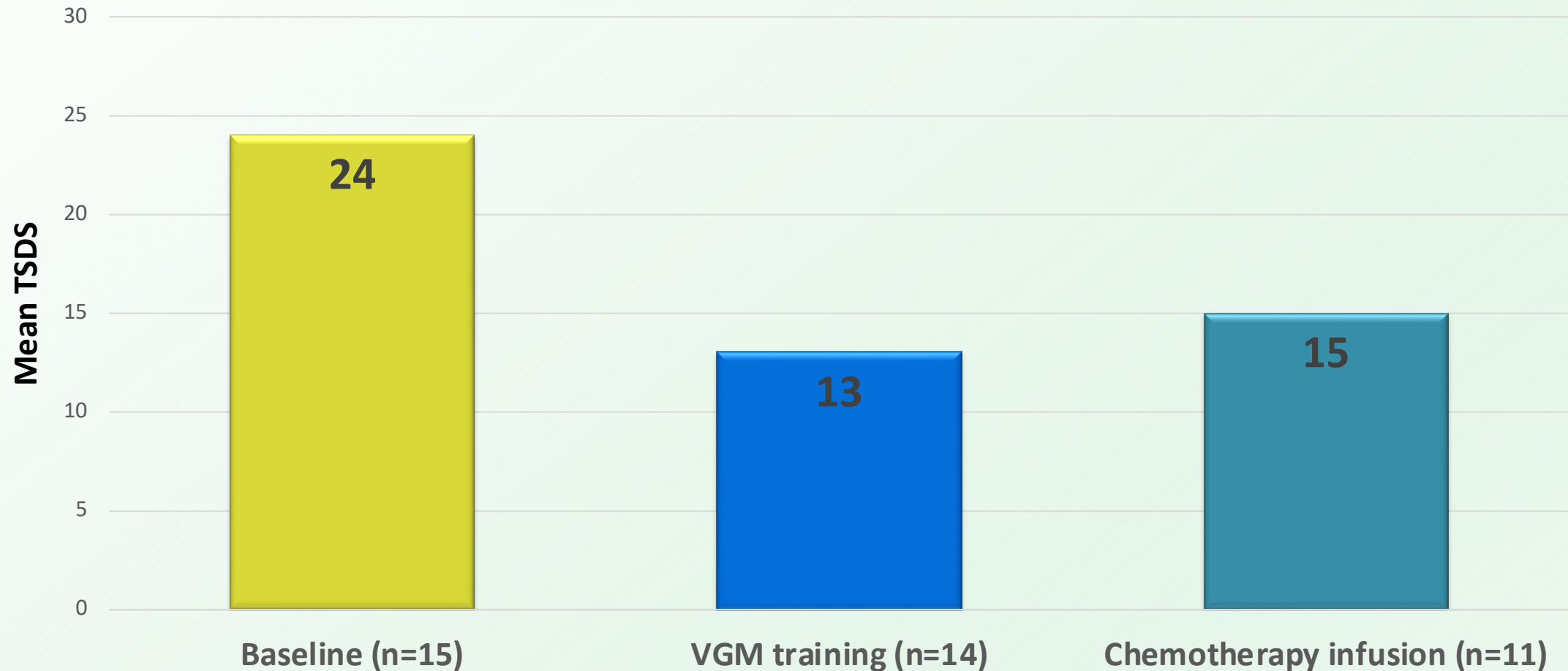
- Symptom-specific scores on ESAS-r based on Minimal Clinically Important Differences (MCID) from baseline across symptom types.
- Treatment responders =  $\geq +3/60$  and  $\geq +2/20$  for physical and emotional clusters, respectively. (*Hui et al, 2017*)

## Participant Baseline characteristics (n = 15)

Characteristic	No.(%)
Age	Median 63 (range 41-80)
Gender	
Male	3 (20%)
Female	12 (80%)
Disease site	
Breast	7 (46%)
Colon	2 (13%)
Pancreas	2 (13%)
Lung	1 (7%)
Esophagus	1 (7%)
Vulvar	1 (7%)
Carcinoma of Unknown Primary	1 (7%)
Stage	
I	4 (27%)
II	2 (13%)
III	4 (27%)
IV	5 (33%)

Characteristic	No.(%)
Chemotherapy agents used	
Paclitaxel	5 (33%)
Docetaxel	5 (33%)
Irinotecan	3 (20%)
Cisplatin	1 (7%)
Fluorouracil	3 (20%)
Cyclophosphamide	2 (13%)
Carboplatin	5 (33%)
Etoposide	1 (7%)
Gemcitabine	1 (7%)
Oxaliplatin	2 (13%)
Leucovorin	3 (20%)
Supportive medications	
Psychiatric	7 (47%)
Pain	8 (53%)
Antiemetics	15 (100%)

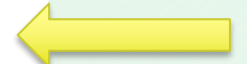
# Mean ESAS-r Total Symptom Distress Score (TSDS) at Baseline, VGM training and Chemotherapy infusion



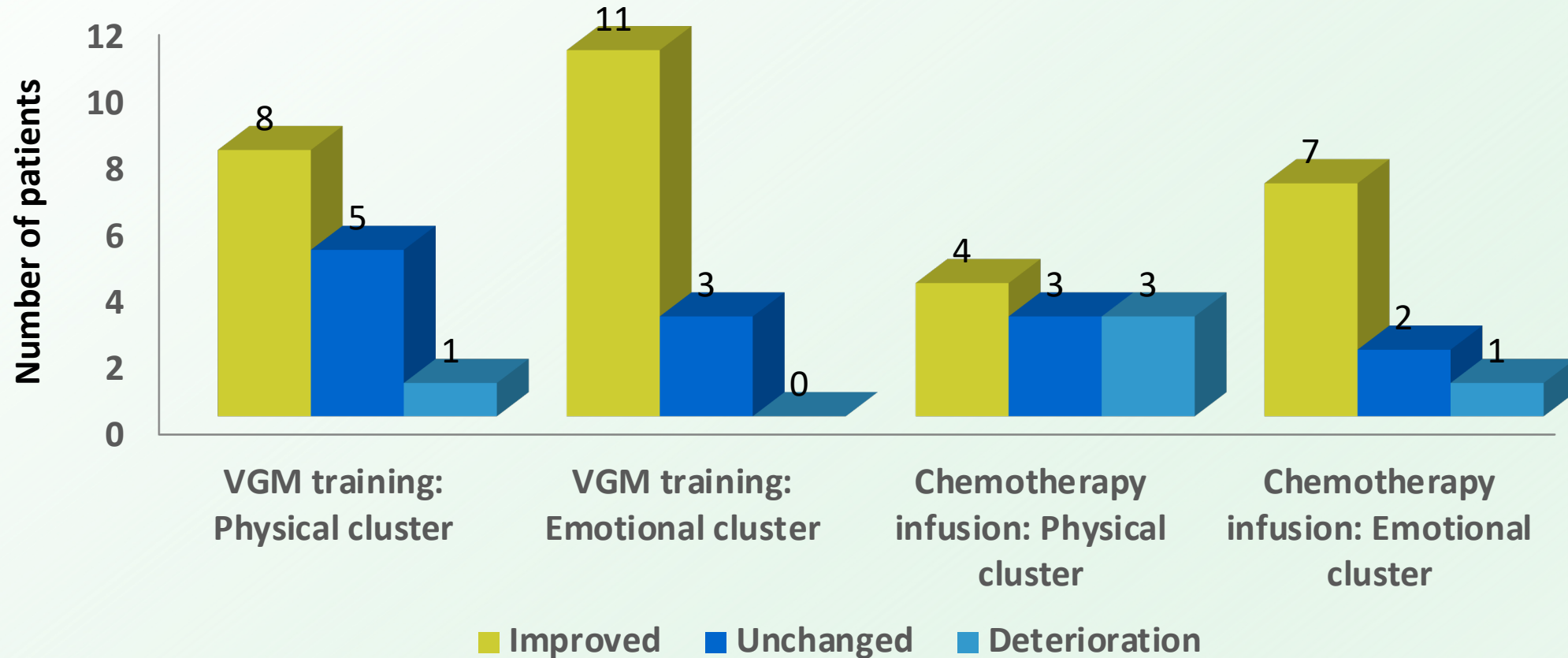
# Change in Baseline ESAS-r Total Symptom Distress Score (TSDS) to endpoint

## Paired Samples Test

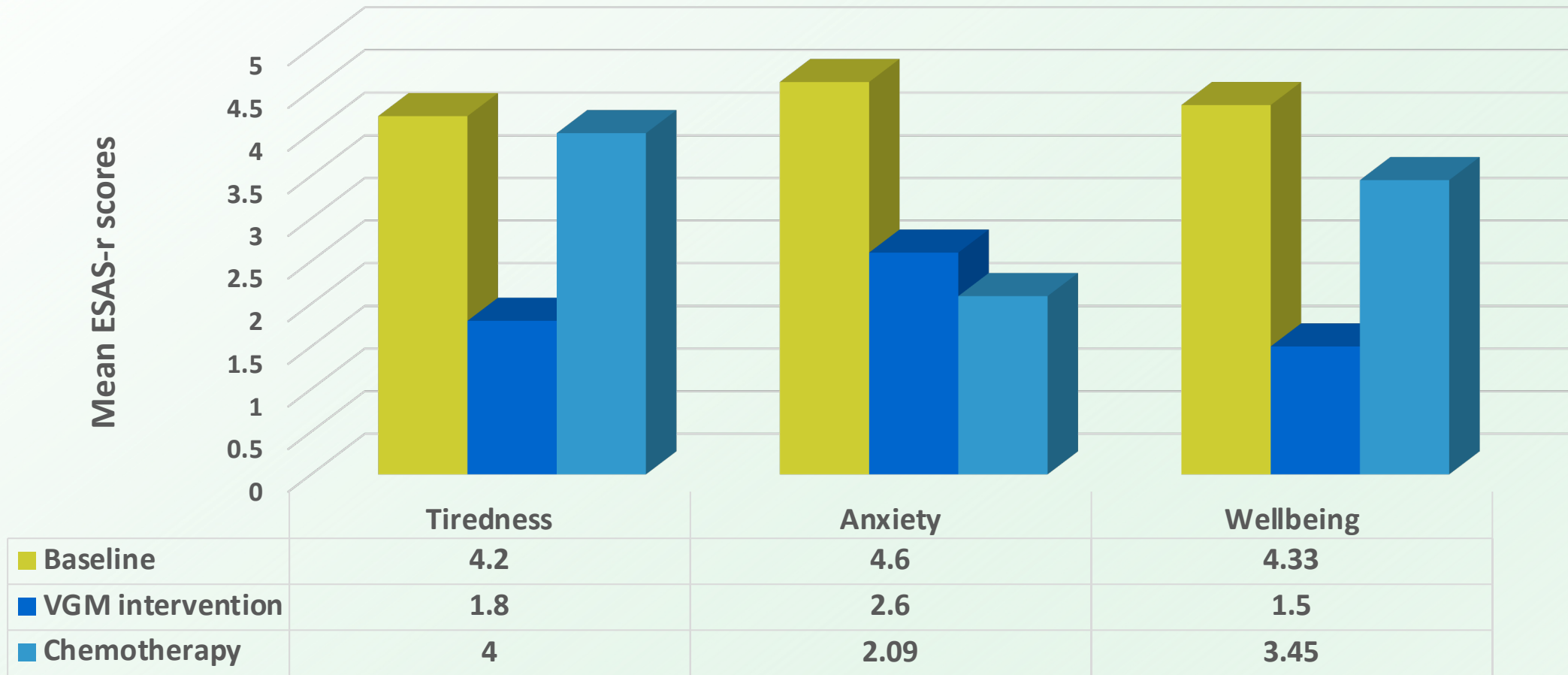
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	TSDS1Baseline - TSDS2Training	11.464	9.384	2.508	6.046	16.882	4.571	13	.001
Pair 2	TSDS1Baseline - TSDS3ChemoA	8.909	21.207	6.394	-5.338	23.156	1.393	10	.194



# MCID Treatment Response by Symptom Cluster from Baseline to VGM training and Chemotherapy infusion

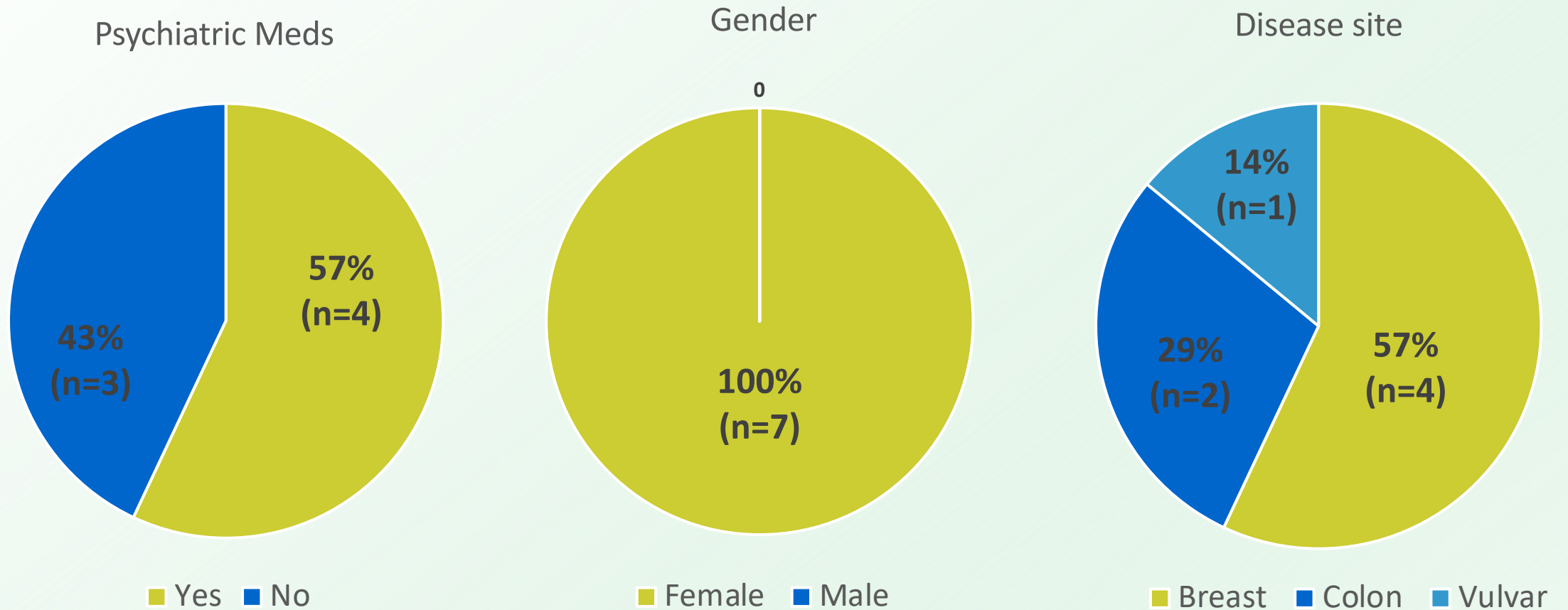


# Comparison of symptom-specific mean scores at Baseline with VGM intervention and Chemotherapy infusion





# Characteristics of anxiety treatment responders (n=7) by Psychiatric medication, Gender and Disease site



## Results among current sample (n=15)

- Total symptom burden:
  - Decrease from Baseline, statistically significant at VGM training intervention, but not sustained at Chemotherapy infusion.
- Symptom-specific burden:
  - Anxiety most positively impacted by this VGM intervention.
  - Anxiety treatment response was independent of psychiatric meds.
  - Tiredness and Wellbeing improved from Baseline to VGM training intervention, but those effects were not sustained at Chemotherapy infusion.
- Anecdotally, patients who report experiencing emotional symptoms and/or insomnia (not evaluated on ESAS-r) 2-5 days post-chemotherapy are more likely to engage in VGM as another supportive tool (many report trying this before turning to PRN meds).
  - Those patients who report experiencing multiple/intense physical symptoms are less likely to turn to VGM for relief, despite endorsing it's positive impact when utilized in the past.

# Conclusion

VGM:

- Is easily taught
- Can be readily implemented in a clinical setting
- Empowers patients and can be practiced in daily life to bolster effects gained in the active treatment setting.

Once our projected enrollment is reached (n=32), if the findings are clinically significant, this VGM intervention may help to:

- mitigate chemotherapy-related symptoms
- improve quality of life
- improve compliance with treatment
- improve health outcomes

# References

- Edmonton Symptom Assessment System: (revised version) (ESAS-R) Tool  
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# Acknowledgements

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