

# Factors Associated with Hematopoietic Stem Cell Transplant Survivors' Adherence to Medical Recommendations

Margolis, Marjorie, BA<sup>1</sup>; Austin, Jane, PhD<sup>2</sup>; Wu, Lisa, PhD<sup>3</sup>; Valdimarsdottir, Heiddis, PhD<sup>4</sup>; Rini, Christine, PhD<sup>1</sup>

1. School of Public Health/Health Behavior, University of North Carolina, Chapel Hill; 2. William Paterson University; 3. Oncological Sciences, Mount Sinai Hospital; 4. University of Iceland, Reykjavik.

## INTRODUCTION

- Hematopoietic Stem Cell Transplant (HSCT), a toxic but often lifesaving cancer treatment, puts patients at risk for life-threatening complications.
- To reduce these risks, transplant survivors must take medications and change their lifestyle and environment (e.g., avoiding certain foods) for months and sometimes years after treatment.
- Only a few studies have examined adherence to medication/medical advice in HSCT survivors.
  - One study found 80% of participants reported non-compliance with medications/medical advice on at least one day.<sup>1</sup>
  - Another study found that 58% of participants reported nonadherence with medications.<sup>2</sup>
  - Elevated distress, male gender, and depression were associated with lower adherence.<sup>1</sup>
- This study assesses self-reported adherence rates in a sample of HSCT survivors and explores potential correlates with non-adherence.
- Findings could have important implications for understanding non-adherence in HSCT survivors.

## OBJECTIVES

- To assess rates of self-reported adherence among a sample of HSCT survivors.
- To identify demographic and medical variables associated with lower adherence in HSCT survivors.

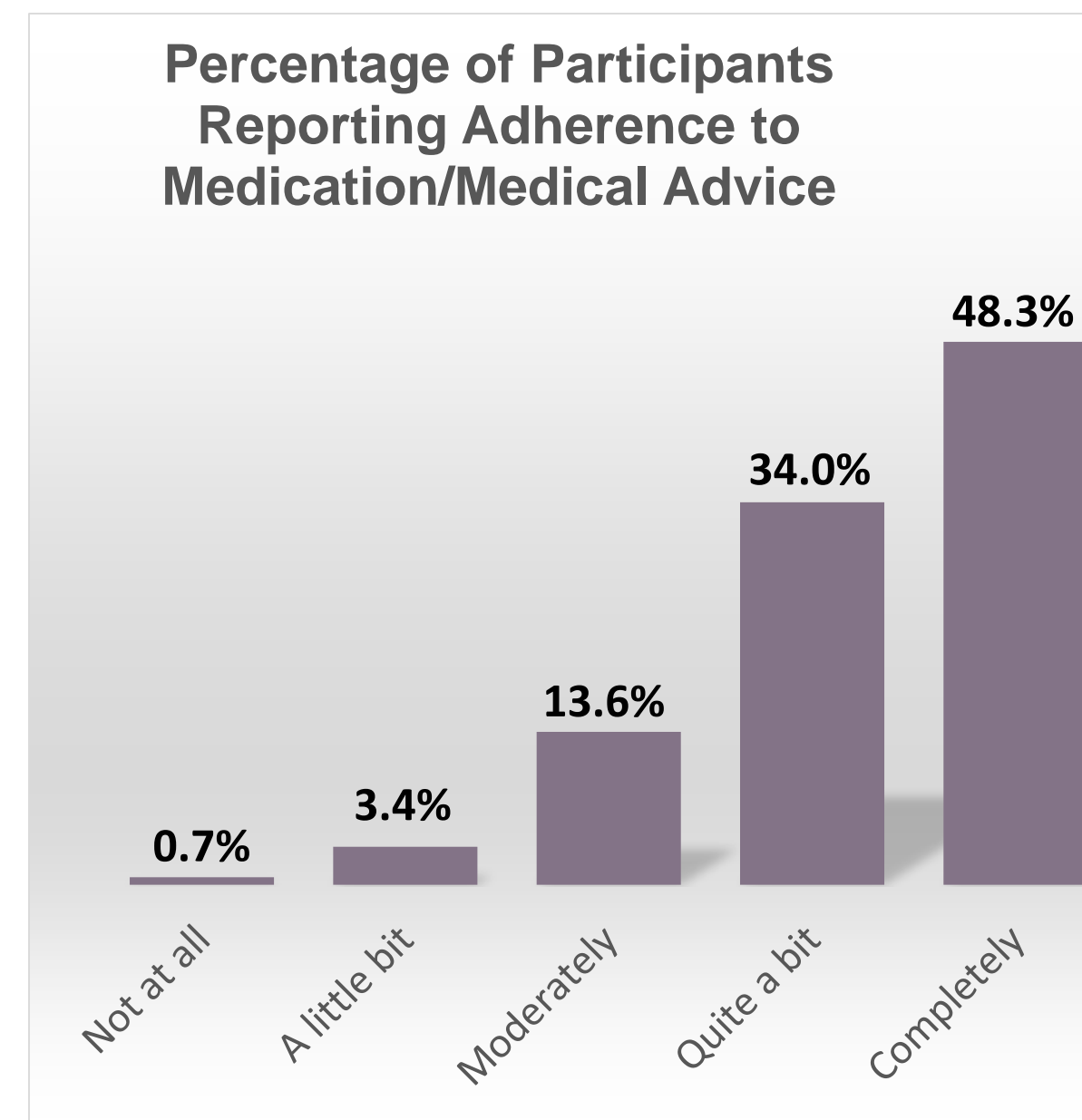
## METHODS

### Study Design and Population

315 HSCT survivors enrolled in a randomized controlled trial to evaluate a psychosocial intervention.<sup>3</sup> All were 9 months to 3 years post-transplant. Data for this study came from a pre-intervention baseline survey.

### Measures

- **Adherence to medical recommendations** was assessed by asking participants if their medical team recommended: 1) dietary changes; 2) changes to social environment; 3) changes to home environment; 4) taking medications. They reported the extent to which they followed each recommendation.
- **Demographic** and **medical variables** that were significant in univariate analysis or indicated as an important predictor in prior research were included in the final model.
- **Psychological distress** was assessed using the Brief Symptom Inventory Global Severity Index.<sup>4</sup>



## RESULTS

Variables	Step 1		Step 2		Step 3		Step 4	
	B	SE	B	SE	B	SE	B	SE
Intercept	2.97	0.59	3.49	0.69	3.53	0.71	3.46	0.69
Education	0.10***	0.03	0.10***	0.27	0.09***	0.03	0.08***	0.03
Sex	0.10	0.13	0.11	0.13	0.11	0.14	0.07	0.13
Race/ethnicity	0.24	0.17	-0.26	0.17	-0.26	0.17	-0.27	0.17
Age	0.00	0.01	-0.00	0.01	-0.00	0.01	-0.00	0.01
Financial strain	-	-	-0.14	0.10	-0.13	0.10	-0.16	0.10
Distress	-	-	-	-	-0.04	0.16	-0.10	0.16
History of GVHD	-	-	-	-	-	-	0.40**	0.13
F for step	4.25***		2.00		0.06		9.41*	
R <sup>2</sup> for step	0.11		0.01		0.00		0.06	
F for full model	4.23***							
R <sup>2</sup> for full model	0.18							

- **Years of education** ( $p < 0.001$ ) and **prior history of GVHD** ( $p < 0.05$ ) were associated with adherence.
- **Financial strain** was associated with adherence in univariate analysis ( $r = -0.184$ ,  $p < 0.05$ ) but lost significance in the final model.

- Slightly less than half ( $n = 147$ ; 46%) of survivors reported receiving at least one recommendation. Of these survivors:
  - 51.7% ( $n = 76$ ) reported less than complete adherence ( $< 5$ )
  - 12.9% ( $n = 19$ ) reported moderate adherence ( $< 3$ ).

## CONCLUSIONS

- Of those required to adhere to a recommendation, over half reported being less than completely adherent.
- Education, a variable associated with health disparities, was associated with lower adherence. Future investigation could explore whether health disparities impact adherence among HSCT survivors.
- Survivors with a history of GVHD, a life-threatening complication (almost exclusively experienced by people who receive transplanted stem cells from a donor, rather than their own stem cells) reported greater adherence.
- In contrast to other studies, gender and distress were not associated with adherence.

## Limitations

- A self-reported measure of adherence could be subject to recall bias or social desirability bias.
- Our study design did not allow us to make causal inferences about factors that could predict lower adherence.

## REFERENCES

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## CONTACT

For further information, please contact Marjorie Margolis, Marjorie\_Margolis@me.unc.edu.