#### **ORIGINAL RESEARCH**



# Harnessing Patient Life Stories to Engage Medical Trainees in Strengthening Veteran-Provider Relationships

Suma K. Thareja<sup>1</sup> • Justin Laridaen<sup>1</sup> • Isabella Puls<sup>1</sup> • Catherine O'Connor<sup>2</sup> • Seth Jovaag<sup>3</sup> • Thor Ringler<sup>3</sup> • Michael McBride<sup>1,4</sup> • Bertrand Berger<sup>1,4</sup>

Accepted: 10 August 2023

© The Author(s) under exclusive licence to International Association of Medical Science Educators 2023

#### **Abstract**

**Introduction** Medical trainees do not have many opportunities to develop communication skills with patients. We established the voluntary "My Life, My Story" (MLMS) program at the Clement J. Zablocki VAMC in Milwaukee, WI, to determine if this pilot narrative medicine program enhanced trainee interpersonal skills and improved patient-centered care.

**Methods** Trainees at the Medical College of Wisconsin conducted in-person or virtual interviews of Veterans receiving care at the Milwaukee VAMC about their meaningful life experiences. Post-interview, trainees wrote a short first-person narrative in the Veteran's voice, which, after the Veteran's approval, was added to the electronic medical record and made available to the patient's care team. Trainees, Veterans, and health professionals completed post-interview surveys, from which we conducted descriptive statistics and qualitatively analyzed the text-based feedback.

**Results** Between 2020 and 2021, 24 medical trainees participated in our pilot implementation of the MLMS program, conducting a total of 32 interviews. All trainees reported a meaningful personal impact and found the pilot to be "valuable" and "rewarding." Both trainees and health professionals believed that the MLMS program improved "rapport building" with Veterans. Nearly all Veterans (n = 25, 93%) believed that their medical care team would be able to provide better care after reading their life story.

**Conclusions** Narrative medicine initiatives like the MLMS program may enable value-added education for trainees. Future research will allow us to better understand and maximize specific educational gains, while further enhancing patient care.

**Keywords** Life story work · Veteran healthcare · Narrative medicine · Medical education

#### Introduction

The current healthcare education curriculum offers trainees limited formal opportunities to learn about the psychosocial concepts of the human condition and to practice establishing rapport with patients. These curricular deficits became exacerbated by the COVID-19 pandemic, during which many facets of medical education switched to a virtual format [1,

- Suma K. Thareja sthareja@mcw.edu
- <sup>1</sup> Medical College of Wisconsin, Milwaukee, WI, USA
- Davidson College, Davidson, NC, USA

Published online: 16 August 2023

- William S. Middleton Memorial Veterans Hospital, Madison, WI, USA
- Clement J. Zablocki Milwaukee VA Medical Center, Milwaukee, WI, USA

2]. Additionally, healthcare medicalization and system-level drivers contribute to empathy erosion and burnout during clinical training [3–5]. Given these significant problems, innovative programs are critically needed to improve interpersonal skills and foster empathy in trainees, in addition to facilitating effective patient care.

The broad power of narrative medicine to humanize patients is well-documented [6–10]. Narrative medicine strategies in education enhance trainee empathy, compassion, listening, and communication skills [11–13]. Furthermore, narrative medicine initiatives improve patient-centered care, empowering patients to voice their psychological experience and feel heard and valued [14–16]. A core component of narrative medicine is life story work, which encompasses storytelling, narrative writing, and reflective exercises, and is commonly used in geriatric medicine [17–20]. Healthcare team familiarity with patient life stories also leads to more effective patient-provider communication [21–23].



Incorporating life story work initiatives into medical trainee curricula has the potential to facilitate value-added medical education. "Value-added" medical education refers to learning experiences that empower medical students to positively contribute to the care team, rather than passively observing [24]. Actively involving medical trainees on care teams will become increasingly important in meeting the growing and changing demands placed on our healthcare systems [25]. Importantly, medical trainees have expressed an interest in engaging in value-added care [26].

The My Life, My Story (MLMS) program is a life story work initiative in which volunteers capture patient life stories in a first-person point-of-view and add the narratives to medical records in a central location for all healthcare team members. The MLMS program, which began at the Madison VAMC, has since been incorporated at various Veterans Administration Medical Centers (VAMCs); some have also been incorporated into trainee education [27–32]. Veterans especially benefit from this work, as each Veteran transitions differently into civilian life, and invisible mental health wounds may remain dormant and unexplored [33]. The few sites that incorporated MLMS into trainee education observed tremendous improvement in patient-centered care competencies for students [30, 32]. No single study to date, however, has described the impact of the program across all three stakeholders at one site.

By incorporating MLMS at the Milwaukee Veterans Affairs Medical Center (VAMC), we sought to determine whether MLMS curricula for trainees could be used to enhance relationships between Veterans and health professionals in addition to improving interpersonal skills for trainees. Unlike the MLMS program at the Madison VAMC, which involved volunteers at any career stage from undergraduate to retired volunteers, our program involved only medical trainees as the interviewers. To this end, a pilot MLMS program was adapted and offered as an extracurricular opportunity for trainees from the Medical College of Wisconsin (MCW). Here, we present an evaluation of this student-driven pilot program. With a focus on fostering value-added education for trainees, we demonstrate that extracurricular narrative medicine programs such as MLMS can (1) improve the interpersonal skills of trainees, (2) foster

empathy and compassion in trainees, and (3) contribute to improving patient-centered care.

#### **Methods**

## **Curriculum and Program Development**

We adapted the program from the MLMS program at University of Wisconsin-Madison (UW-Madison), which was originally implemented by a team of medical students and physicians to improve patient-centered care of Veterans [34]. Since its implementation in Madison, more than 50 VAMCs adopted similar programs. We designed and translated the traditional MLMS program into an extracurricular opportunity for trainees at MCW. As participants in the program, trainees interviewed a Veteran receiving care at the Milwaukee VAMC about their most meaningful life experiences and subsequently wrote a short first-person narrative in the voice of the Veteran. Upon the Veteran's approval, we uploaded the narratives into the medical record and made them available to the patient-care team.

The development of this program took approximately 6 months, with efforts led mainly by medical students, along with supervision from faculty advisors. First, we conducted an extensive literature review on life story work, mattering, MLMS impact at other institutions, and medical trainee empathy. Based on our literature review, we developed the focus and goals of our program (Table 1). Our team then curated resources to facilitate successful interviews and narratives. We also prepared necessary regulatory and consent paperwork. With the framework provided by the MLMS program at UW-Madison, this program was relatively easy to implement, and the additional resources we prepared are available upon request.

# **Educational Strategy**

We recruited medical trainees from MCW. Before conducting an interview, all trainees completed requisite training. Invited speakers (or recorded lectures) from physicians and Madison VAMC MLMS editors taught trainees about military culture, communication, active listening,

**Table 1** My Life, My Story pilot program goals and objectives

Goal: To teach trainees to be holistic healthcare practitioners who practice patient-centered care Reasoning: Narrative medicine initiatives, such as MLMS, use clinical time efficiently to provide valueadded educational opportunities for medical trainees

#### **Objectives:**

- Enable trainees to improve informal interpersonal communication skills
- Facilitate trainee practice of establishing rapport with patients of diverse backgrounds
- Foster trainee empathy and compassion
- Improve patient-centered care for Veterans



and writing skills. We oriented trainees to the storytelling process by reviewing multiple examples of narratives from MLMS. Trainees also received guiding questions for their interviews, which would allow conversations to flow naturally, while still prompting the discussion of meaningful life events. We highlighted important narrative strategies in the writing process, such as bringing in direct quotes and avoiding descriptions of appearance. Trainees were encouraged to limit the narratives to approximately two pages of text.

A convenience sample of Veterans from the Milwaukee VAMC was recruited using events, emails, fliers, and referrals from physicians. We paired trainees with Veterans according to their interview preference (virtual or in-person). The Veterans were consented for a written narrative to be added to their medical record following the MLMS interview (VA Form 10–3203). Using the provided guiding questions, trainees independently facilitated conversations, enabling an open space for Veterans to share meaningful experiences.

Trainees wrote the life story from a first-person perspective and shared the narrative with the Veteran for approval. Veterans held complete autonomy and could stop the interview or request that their story remain private from their medical record. In addition, leaders of the program provided trainees with brief feedback on their work. The narratives were then uploaded to the EMR as "My Story" notes, and members of the Veteran's healthcare team, including physicians, psychologists, registered nurses, nurse care managers, social workers, and licensed practical nurses, were added as additional signers, which notified them to review and sign the note. The student leadership team and faculty advisors provided oversight and addressed any trainee questions or concerns.

## **Implementation and Maintenance**

All trainees needed a phone. If they conducted an in-person interview, trainees also needed a car or access to other transportation. We instructed all trainees to communicate with Veterans using Doximity, a HIPAA-Safe dialer (San Francisco, CA, USA). Trainees recorded stories on VA-approved audio recording devices and took hand-written or typographic notes. Leaders of the program needed access to the VAMC EMR system to upload the narratives. Each story began with the following disclaimer: [This story is being told by the Veteran in their own words. No facts were confirmed or discounted]. During the COVID-19 pandemic, we adjusted the program to enable a remote interview format based on the comfort levels of the Veteran and trainee. Apart from this alteration once the program began, the team did not face any major challenges.

## **Program Evaluation**

We sought to understand perceptions and impact of the MLMS program from all stakeholders anonymously using Likert-scaled questions. Additionally, open-ended questions requiring a text response were posed to each group.

- Medical trainees were asked: What about this exercise surprised you? How was this different from your other patient interactions? Do you have any additional comments, concerns, or suggestions?
- Health professionals were asked: Please describe a personal experience using a My Story note during a patient encounter? Do you have any comments, concerns, or suggestions?
- Veterans were asked: Do you have any additional comments, concerns, or suggestions?

Veterans and trainees completed surveys immediately after finishing the interview. In 2022, we solicited feedback members of the healthcare team caring for Veterans with an uploaded MLMS story. Feedback surveys for Veterans (Fig. S1), medical trainees (Fig. S2), and health professionals (Figs. S3 and S4) are included in the Supplementary Information. The surveys were available for completion via paper copies or through Qualtrics links (Provo, UT, USA).

# **Program Analysis**

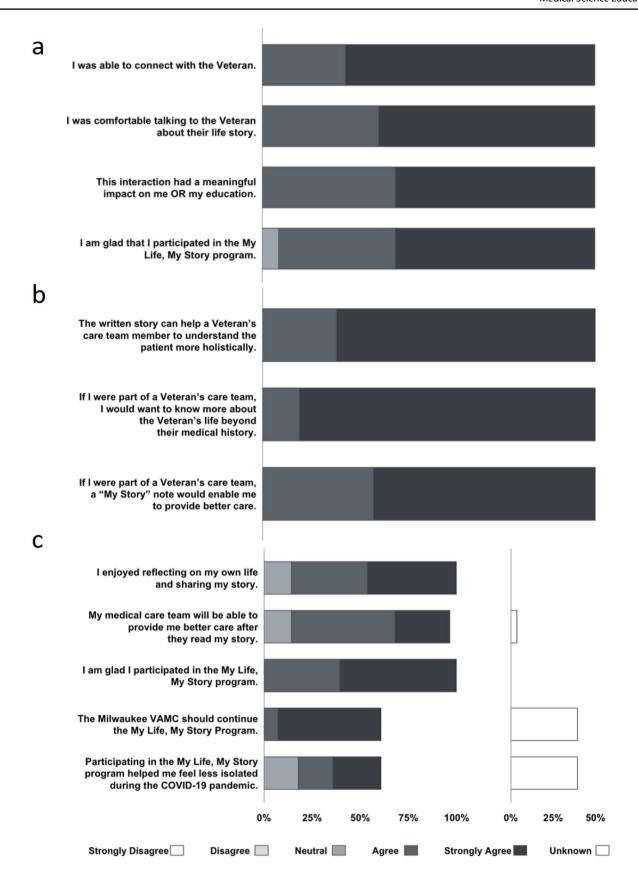
In this work, we plotted descriptive statistics (counts and percentages) using R 4.1.2. (R Foundation for Statistical Computing, Vienna, Austria) with the packages Likert [35], HH [36], and DiagrammeR [37]. For attitude questions, the responses were on a Likert scale of 1 (strongly disagree) to 5 (strongly agree). Three authors (S.T., J.L., and I.P.) independently conducted thematic analysis in parallel to understand and analyze qualitative comments by utilizing an approach described previously in the literature [31, 38]. S.T., J.L., and I.P. independently generated common themes that reflected all comments and following discussion to resolve disagreements, created a single list of themes. By independently reapplying this revised list of themes, S.T., J.L., and I.P. determined consensus and compiled frequency counts.

## Results

#### Subjects

Between 2020 and 2021, 24 medical trainees participated in our MLMS pilot. Thirty-two Veterans (4 females and 28 males) volunteered to participate in the MLMS program. Most male Veterans were between 70 and 79 years old, while all female Veterans were less than 60 years old Veterans







**<Fig. 1** Trainee and Veteran feedback on participation in the My Life, My Story pilot program. **a** Medical trainees' responses on a Likert scale of strongly agree to strongly disagree to interviewing Veterans and writing the "My Story" notes (n=20) and **b** perceptions if they were part of a Veteran's care team (n=9). **c** Veterans' responses to statements on a Likert scale of strongly agree to strongly disagree statements (n=28). Unknown responses shown to the right of the panel are due to unanswered questions or questions added to the feedback survey in later years

primarily came from Southeastern Wisconsin; five resided in zip codes over 100 miles away from the Milwaukee VAMC. Among the health professionals that read a patient's life story (n = 13), there were 5 physicians (38%), 3 licensed practical nurses (23%), 2 registered nurse/nurse care managers (15%), 1 nurse practitioner (8%), 1 psychologist (8%), and 1 social worker (8%).

## **Interviewing and Writing Process**

In early 2020, all "My Story" interviews occurred in-person. When the COVID-19 pandemic began, we created a virtual format for the story-taking process. Over the 2020-2021 period, 20 (62%) interviews occurred virtually while 12 (38%) happened in-person. Ten (34%) interviews lasted less than 1 h and another 10 (34%) ran between 61 and 90 min. Most stories (n=19, 59%) were around 1000–1500 words or roughly two pages.

#### **Program Evaluation**

All medical trainees (n=24, 100%) reported a meaningful personal impact (Fig. 1A). Most (n=23, 96%) were glad to have participated in the MLMS program. All trainees agreed that if they were part of a healthcare team, they would want to know more about the Veteran's life beyond their medical history and that the "My Story" note would help them understand the patient more holistically and enable them to provide better care (Fig. 1B).

Most Veterans enjoyed reflecting on their own life and sharing their story (n = 25, 86%) and believed that their medical care team will be able to provide them better care after reading their life story (n = 25, 86%) (Fig. 1C). All Veterans (n = 28, 100%) were glad to have participated in the program and agreed that the Milwaukee VAMC should continue the program. Twelve (70%) Veterans shared that participating in the MLMS program helped them feel less isolated during the COVID-19 pandemic. Seventeen (61%) Veterans planned to share their life stories with their family or friends.

All 13 healthcare professionals agreed that reading "My Story" notes was a good use of their clinical time, helped them build stronger rapport with Veterans, and helped them see the Veterans' perspectives. Most agreed that the "My

Story" notes helped them provide better treatment/care (n=12, 92%) and create personalized patient healthcare plans and goals (n=11, 85%). Most also agreed that trainees would benefit from interviewing and writing Veteran life stories (n=11, 85%) and that the Milwaukee VAMC should continue offering the MLMS program to Veterans (n=12, 92%). All healthcare professionals stated that the "My Story" notes impacted themselves and their patients either very positively or somewhat positively.

# **Thematic Insights from Stakeholders**

After analyzing comments to open-ended questions (n=48) from Veterans, trainees, and healthcare professionals, several themes emerged. Researchers conducting the thematic analysis were (n=46, 96%) congruent in the selection of themes for all comments. The most frequent themes for the medical trainee cohort included "Openness to sharing" and "Humanizing the patient." Veterans mainly "showed gratitude" and relayed that the program was a "rewarding experience." Lastly, among healthcare professionals, the most common themes included "therapeutic value of narrative medicine," "humanizing the patient," and "personalizing care." Reflections capturing these themes are further detailed below.

#### Theme 1. Therapeutic Value of Narrative Medicine

Medical trainees (N=9) and healthcare professionals (N=4) noted that storytelling contributes to the patient's sense of well-being. They even observed the potential of narrative medicine to help heal trauma.

**Medical Trainee** He said he felt as though he was able to relieve a burden off his shoulders by speaking about his past and what troubles his mind.

**Provider** I have referred 3 patients. They all enjoyed the process. All had PTSD and "being heard" was valuable for them.

## Theme 2: Educational Value of Narrative Medicine

Medical trainees (N=8) and health professionals (N=1) commented on the educational value of participating in this MLMS pilot. Both found that participation enhanced medical trainee education.

**Medical Trainee** I found this to be a very valuable experience, not only to learn about caring for Veterans, but also how to be a more personable doctor who shows genuine care and interest towards their patients.



## Theme 3. Open-Ended, Unimpeded Conversation

Many medical trainees (N=7) described the value of open conversations with Veterans, free from the time restrictions placed on standard clinical encounters. Furthermore, they importantly noted that the Veterans had full autonomy over their story and had a platform to speak freely.

**Medical Trainee** I liked that the Vet and I could set our schedule. We talked longer than we thought we would, and we didn't feel rushed. It also felt collaborative.

## Theme 4: Positive Shift in Perspective

Some medical trainees (N=3) and health professionals (N=2) discussed how participating in this MLMS pilot positively changed their perspective. They highlighted that engaging with a Veteran's narrative provided them insight beyond what they normally learn about patients in medical settings, allowing the Veterans to be better heard and understood.

Medical Trainee On regular patient interactions it is mostly about the medicine, this was so much more and so much different. It was an honor to hear such a story. So much more is said than can be written, and it is as much about writing the story, but perhaps a lot more about hearing it.

## Theme 5: Openness to Sharing

Many medical trainees (N=10) believed that the Veterans were able to communicate their thoughts, feelings, and experiences freely. Oftentimes, the Veteran's openness contrasted what medical trainees had experienced in previous patient interactions.

**Medical Trainee** *I was surprised at how excited the Veteran was to share his story. He really enjoyed talking with me.* 

# Theme 6: Humanizing the Patient

Both medical trainees (N=9) and health professionals (N=3) believed that storytelling approach of MLMS allowed the Veteran's individuality and unique experiences to be uncovered. This, in turn, allowed the medical trainees to better understand how the Veteran's life shaped their current condition.

Medical Trainee When we see patients, usually we just talk about their current problems, but we don't get to hear about where they come from and the lives they lead. It can be easy to forget that our patients on the inpatient ward have lives outside of [specific ward].

**Provider** I felt that the "my story" really added context to a Veteran's experience of war time trauma...It really helped

me understand his perspectives, and I think he really liked having the chance to be heard and to be fully humanized.

#### Theme 7: Rewarding Experience

All three stakeholders, including 9 medical trainees, 10 Veterans, and 3 health professionals, described their participation in the MLMS program as valuable. Their positive reflections support that MLMS, and life story work in general, is worthwhile for all individuals involved.

Medical trainee This experience really hit a new level, so to speak, in terms of having a person/patient open up to me. I felt really good that he was comfortable speaking to me about experiences and events in his past that clearly have troubled him for decades and he mentioned he hasn't spoken of certain things in years.

**Veteran** If anybody at all is approached about doing this, they shouldn't hesitate to tell their story. It's so important.

**Provider** I can't support this highly enough.

#### **Theme 8: Personalizing Care**

Importantly, medical trainees (N=3), Veterans (N=1), and health professionals (N=3) highlighted how narrative medicine can promote individualized care. They noted how life story work facilitated a deeper understanding of the patient, which allows treatments to be better tailored to their needs.

Medical Trainee On my surgery team, we run in, do the dressing changes, ask some questions, and run out. This was invaluable to my learning about the Veteran's background and what made him into who he is.

**Veteran** I believe My Life My Story program can really enhance individualized care at the VA. I will encourage other veterans to participate.

**Provider** I wish all our Vets could participate but especially our Vets who are at risk of losing their capacity to share their lives...It helps us humanize each other and truly give individualized care.

#### Theme 9: Showing Gratitude

Many medical trainees (N=8) and Veterans (N=8), in addition to a provider (N=1) expressed appreciation for the experience of in the MLMS.



**Medical Trainee** *I think both the patient and I were grateful to have a long, not-rushed conversation.* 

**Veteran** Our family is most grateful for the honor this program provided.

## Theme 10: Rapport Building

Medical trainees (N=7) and health professionals (n=3) discussed how hearing the Veteran's story allowed them to better develop mutual trust and affinity with the patient. They noted how this improved their ability to establish a meaningful rapport.

Medical Trainee How much the Veteran opened up about his military experience. There were parts that were so meaningful he actually did not want them written down. It was between just the two of us.

**Provider** *Knowing the story helped to build a relationship and a working understanding that calmed the patient.* 

## Discussion

This work highlights the value of MLMS for trainees, Veterans, and health professionals. We demonstrate that trainees reported increased comfort, connectedness, and compassion following Veteran interviews. By delving into Veteran narratives outside of medical duties, trainees recognized the integral role that personal context plays in healthcare delivery. Furthermore, we show that this MLMS pilot enhanced the Veteran's healthcare experience, fostering more meaningful relationships with health professionals.

# **Improving Trainee Interpersonal Skills**

Trainees practiced many interpersonal skills through participation in a MLMS extracurricular pilot, and chief among them includes active listening and oral and written communication. When trainees recap the narrative from a first-person perspective, they momentarily stand in the patient's shoes, developing a deeper understanding of the Veteran as an individual beyond their medical history. This intimate level of connection to a patient's background is rarely paralleled in other parts of medical education, which is reflected in our thematic analysis, as both trainees and health professionals commented on the unique value of MLMS. Given the impact of COVID on medical education, we believe the opportunity to establish close relationships with patients is especially important for trainees.

In collaborating with their Veteran to create the narrative, trainees uncovered the psychosocial determinants of

patient health, including lifestyle, environment, and motivations. One trainee noted "This was invaluable to my learning about the Veteran's background and what made him into who he is" and another stated "I learned more about the military and how it can impact health and wellness." The promising trainee feedback described here comes after trainees completed just one MLMS experience. We found that writing one narrative allows for notable educational gains to be made without requiring a significant administrative burden or substantial time investment. This observation is consistent with other narrative medicine programs, in which medical trainees also quickly achieved the learning goals of improving interpersonal skills [39].

# **Trainees Actively Contribute to Patient-Centered Care**

To our knowledge, the Warren Alpert Medical School of Brown University is the only medical college that has formally integrated narrative medicine as a mandatory component of the curriculum for all students [32]. Similar to the feedback we received, the majority of first- and third-year students reported that participating in life story work helped them recognize the patient's feelings, become more attentive and responsive to patients' needs, and display empathy and genuine interest towards patients [32]. However, our work shows that Veterans and health professionals also found it to be beneficial.

By creating and uploading these narratives, trainees were not passive observers, but rather active members of the care team. Patient-centered care requires effective patient-provider communication, which only transpires after health professionals build rapport with their patients [40]. Of important note, creating a harmonious patient-provider relationship often takes longer with the Veteran patient population [41]. While this mutual connection is fundamental to the paradigm of whole health, healthcare medicalization restricts the time and scope of the clinical visit [5, 41]. In our work, the MLMS pilot program relied upon trainees rather than health professionals to conduct these informal conversations and provided Veterans with a platform outside the clinical encounter to speak without time or content restrictions. Trainees encouraged Veterans to reflect on what matters, embodying the essence of active patient engagement the first step in the shared decision-making process [42]. These informal conversations enabled patients to be candid about their lived experiences that shape their worldview.

Writing or reading these stories enabled trainees and health professionals to learn details that would not be discussed organically during a patient encounter. Many Veterans shared stories with trainees that they had previously not discussed with others. This additional understanding humanizes patients, paving the way for trainees and health professionals to better appreciate their patients' unique



perspectives and empathize more effectively. Thus, harnessing written life stories through an extracurricular narrative medicine program not only allows trainees to practice building rapport and establishing trust, but also meets the call for expanding "value-added" educational opportunities [24].

# **Program Challenges and Future Directions**

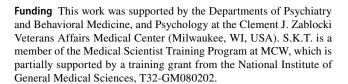
Following implementation of the MLMS program in early 2020, we faced challenges spurred by the COVID-19 pandemic, such as limited interview settings that likely impact Veteran and trainee participation. The convenience sample of Veterans, trainees, and healthcare professionals who completed the surveys may also explain the mostly positive feedback we see in this work. As there is a skew towards more male, older Veterans participating in the program, further evaluation of female Veterans who participate in future interviews may improve generalizability on the value of MLMS for different genders.

Despite these challenges and limitations, we believe that our MLMS extracurricular pilot program evaluation corroborates previous findings and affirms the value for trainees who complete an interview and life story writeup. Our MLMS curriculum, which was student-driven and took only 6 months to implement, promoted a closely allied community where Veterans, trainees, and health professionals worked as a cohesive team. Implementing an MLMS program is feasible outside of the VA setting but may require some modifications. The MLMS narrative structure can easily be generalized to any patient, not just Veterans, without any significant changes as was done at a separate site [32]. Although the stories are populated on the facesheet using a VA note template, these life stories can be saved as progress notes in other EMR systems. Designating these progress notes to appear on the facesheet for a patient's medical record may pose some IT challenges.

Given the positive feedback from this pilot and the literature published to date, we strongly believe that the implementation of MLMS or MLMS-like initiatives holds remarkable potential for transforming healthcare education and improving patient care. As a result, we are currently working on integrating a MLMS program into the formal medical curriculum for clerkship students at MCW.

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s40670-023-01854-4.

Acknowledgements We thank Adina Kalet, MD, Lana Minshew, PhD, Jeff Fritz, PhD, MS, MATL, Jessica Olson, PhD, MPH, and Nitish Thareja, MS, for their review of this manuscript. We are grateful to the Veterans and healthcare health professionals of the Clement J. Zablocki VA Medical Center in Milwaukee, WI, for their participation and feedback. We also thank the volunteers from the Milwaukee VAMC and MCW for their support.



**Data Availability** All data generated or analyzed during this study are included in this article.

#### **Declarations**

Ethics Approval An administrative review by the Research Office at the Clement J. Zablocki VAMC in Milwaukee, WI, occurred and determined that the MLMS program did not meet the definition of research. MLMS is an approved operations activity at the Milwaukee VAMC. All survey feedback was obtained in an anonymous format. Program activities were carried out in accordance with relevant guidelines and regulations.

**Conflict of Interest** The authors declare no competing interests.

#### References

- Collaborative TMS. The perceived impact of the COVID-19 pandemic on medical student education and training an international survey. BMC Med Educ. 2021;21(1):566.
- Gard J, Polley C, Cisternino A, Gray A. The void: COVID-19 restrictions and junior doctor education opportunities. Med Teach. 2022;44(11):1290–5.
- Chen D, Lew R, Hershman W, Orlander J. A cross-sectional measurement of medical student empathy. J Gen Intern Med. 2007;22(10):1434–8.
- Khan R, Martimianakis MA. Empathy, burnout, and the hidden curriculum in medical training. In: Foster AE, Yaseen ZS, editors. Teaching Empathy in Healthcare: Building a New Core Competency. Cham: Springer International Publishing; 2019. p. 239–50.
- Maturo A. Medicalization: current concept and future directions in a bionic society. Mens Sana Monogr. 2012;10(1):122–33.
- 6. Charon R. To see the suffering. Acad Med. 2017;92(12):1668–70.
- Lai CKY, Igarashi A, Yu CTK, Chin KCW. Does life story work improve psychosocial well-being for older adults in the community? A quasi-experimental study. BMC Geriatr. 2018;18(1):119.
- 8. Pennebaker JW. Telling stories: the health benefits of narrative. Lit Med. 2000;19(1):3–18.
- 9. Sierpina VS, Kreitzer MJ, Mackenzie E, Sierpina M. Regaining our humanity through story. Explore (NY). 2007;3(6):626–32.
- Greenberg MA, Stone AA. Emotional disclosure about traumas and its relation to health: effects of previous disclosure and trauma severity. J Pers Soc Psychol. 1992;63(1):75–84.
- 11. Arntfield SL, Slesar K, Dickson J, Charon R. Narrative medicine as a means of training medical students toward residency competencies. Patient Educ Couns. 2013;91(3):280–6.
- 12. Charon R. The patient-physician relationship. Narrative medicine: a model for empathy, reflection, profession, and trust. JAMA. 2001;286(15):1897–902.
- 13. Milota MM, van Thiel G, van Delden JJM. Narrative medicine as a medical education tool: a systematic review. Med Teach. 2019;41(7):802–10.
- Chretien KC, Swenson R, Yoon B, et al. Tell me your story: a pilot narrative medicine curriculum during the medicine clerkship. J Gen Intern Med. 2015;30(7):1025–8.
- Pinquart M, Forstmeier S. Effects of reminiscence interventions on psychosocial outcomes: a meta-analysis. Aging Ment Health. 2012;16(5):541–58.



- Rosti G. Role of narrative-based medicine in proper patient assessment. Support Care Cancer. 2017;25(Suppl 1):3–6.
- Chochinov HM, Kristjanson LJ, Breitbart W, et al. Effect of dignity therapy on distress and end-of-life experience in terminally ill patients: a randomised controlled trial. Lancet Oncol. 2011;12(8):753–62.
- McKeown J, Clarke A, Repper J. Life story work in health and social care: systematic literature review. J Adv Nurs. 2006;55 (2):237–47.
- 19. Butler RN. The life review: an interpretation of reminiscence in the aged. Psychiatry. 1963;26:65–76.
- Bensadon BA. Psychology and geriatrics: integrated care for an aging population. 1st ed. Elsevier: Academic Press; 2015.
- 21. Dean W, Talbot S, Dean A. Reframing clinician distress: moral injury not BURNOUT. Fed Pract. 2019;36(9):400–2.
- Overhage JM, McCallie D Jr. Physician time spent using the electronic health record during outpatient encounters: a descriptive study. Ann Intern Med. 2020;172(3):169–74.
- 23. Bailey M. Too many tests, too little time: doctors say they face 'moral injury' because of a business model that interferes with patient care. The Washington Post; 2020. https://www.washingtonpost.com/health/too-many-tests-too-little-time-doctors-say-they-face-moral-injury-because-of-a-business-model-that-interferes-with-patient-care/2020/01/31/c00e9d58-3d3a-11ea-8872-5df698785a4e\_story.html. Accessed 14 May 2023.
- Lin SY, Schillinger E, Irby DM. Value-added medical education: engaging future doctors to transform health care delivery today. J Gen Intern Med. 2015;30(2):150–1.
- Gonzalo JD, Lucey C, Wolpaw T, Chang A. Value-added clinical systems learning roles for medical students that transform education and health: a guide for building partnerships between medical schools and health systems. Acad Med. 2017;92(5):602–7.
- Leep Hunderfund AN, Starr SR, Dyrbye LN, et al. Value-added activities in medical education: a multisite survey of first- and second-year medical students' perceptions and factors influencing their potential engagement. Acad Med. 2018;93(10):1560–8.
- Correro A, Hinrichs K, Nathan S. My life, my story and identity disclosure among transgender and gender diverse veterans: a program evaluation. Transgender Health. 2022;7(6):556–60.
- Gately ME, Muccini S, Eggleston BA, McLaren JE. Program evaluation of my life, my story: virtual storytelling in the COVID-19 age. Clin Gerontol. 2022;45(1):195–203.
- Nathan S, Fiore LL, Saunders S, et al. My life, my story: teaching patient centered care competencies for older adults through life story work. Gerontol Geriatr Educ. 2022;43(2):225–38.

- Nathan S, Woolley AB, Finlay L, Moye J. Teaching pharmacy students and residents patient-centered care through interviewing veterans. Am J Pharm Educ. 2021;85(8):8384.
- Roberts TJ, Ringler T, Krahn D, Ahearn E. The my life, my story program: sustained impact of veterans' personal narratives on healthcare providers 5 years after implementation. Health Commun. 2021;36(7):829–36.
- 32. Lam Jeffrey A, Feingold-Link M, Noguchi J, et al. My life, my story: integrating a life story narrative component into medical student curricula. MedEdPORTAL. 2022;18:11211.
- Morin R. The difficult transition from military to civilian life. Pew Research Center; 2011. https://www.pewresearch.org/social-trends/ 2011/12/08/the-difficult-transition-from-military-to-civilian-life/. Accessed 3 May 2023.
- Ringler T, Ahearn E, Wise M, Lee E, Krahn D. Using life stories to connect veterans and providers. Federal practitioner: for the health care professionals of the VA, DoD, and PHS. 2015;32:8–14.
- Bryer J, Speerschneider K. Likert: analysis and visualization Likert items. 2016. Available from: https://CRAN.R-project.org/ package=likert.
- Heiberger RM, Robbins NB. Design of diverging stacked bar charts for Likert scales and other applications. J Stat Softw. 2014;57:1–32.
- 37. Iannone R. DiagrammeR: Graph/Network Visualization. 2022. Available from: https://github.com/rich-iannone/DiagrammeR.
- Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol. 2006;3:77–101.
- Huang CD, Jenq CC, Liao KC, Lii SC, Huang CH, Wang TY. How does narrative medicine impact medical trainees' learning of professionalism? A qualitative study. BMC Med Educ. 2021;21(1):391.
- Rogers CR. Significant aspects of client-centered therapy. Am Psychol. 1946;1(10):415–22.
- 41. Gilligan C, Brubacher SP, Powell MB. "We're all time poor": experienced clinicians' and students' perceptions of challenges related to patient communication. Teach Learn Med. 2022;34(1):1–12.
- Barry MJ, Edgman-Levitan S. Shared decision making the pinnacle of patient-centered care. N Engl J Med. 2012;366(9):780–1.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Springer Nature or its licensor (e.g. a society or other partner) holds exclusive rights to this article under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.

