Better Together: Long-term Behaviors and Perspectives after a Practitioner–Family Writing Intervention in Clinical Practice

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INTRODUCTION

The medical environment features many stressors for patients, their families, and health-care practitioners. Excessive stress has been shown to be detrimental to human health in many ways. Therefore, interventions that either reduce stress or improve coping are of considerable interest. One method used to help cope with stress is expressive writing (EW), defined as therapeutic writing that involves disclosure of personal information, thoughts, or feelings. EW has been associated with reduced stress, improved health, increased disease-related quality-of-life scores, and reductions in physical symptoms in a variety of patient populations. EW interventions also have the potential to be low-cost, low-risk, and are generally well-accepted by patients.

Although many EW interventions have been associated with short-term health benefits, few studies have examined the long-term effects of EW. One EW intervention was associated with long-term benefits and behavior changes in resident physicians who participated in a 2-day writing workshop. To our knowledge, there are no studies showing long-term behavior changes in patients or family members following a brief EW intervention in clinical practice.

We recently described a brief, novel, EW intervention for use in routine clinical practice, titled the Three-minute Mental Makeover (3MMM), during which the practitioner and patient/family members write and share together. The 3MMM intervention was shown to be associated with reduced stress for patient/family members and practitioners immediately after completing the intervention. This follow-up study examines long-term practitioner and patient/family member perspectives regarding the 3MMM intervention, as well as the long-term use of writing to cope with stress. The 3MMM intervention prompts are presented in Figure 1.

METHODS

This follow-up study evaluated long-term perspectives related to the 3MMM intervention and writing behavior changes in patient/family members and practitioners after participation in the original 3MMM study.

Patients and family participants from the original study were recruited using convenience sampling. These patients and family members were cared for in clinical settings by 1 of the 8 participating practitioners, who sensed the patient/family members were experiencing stress and therefore were invited to complete the 3MMM activity. Health-care practitioners included 2 pediatric residents, 3 pediatric nurses [1 neonatal Intensive Care Unit (ICU), 1 pediatric ICU, and 1 general inpatient pediatric unit], a developmental psychologist, a developmental educator, and a pediatric cardiologist. Patient/
family members were recruited from the neonatal ICU, pediatric ICU, inpatient pediatric unit, and outpatient pediatric clinics at a Chicago-area children’s hospital. Clinicians selected patient/family participants who they determined subjectively to be experiencing emotional stress.

Twelve to 18 months after completing the original study, follow-up contact was attempted for all 96 original patient/family members. Participants were called and asked to complete a 9-question survey (Table 1) as a phone interview. Calls were conducted by a medical student researcher not involved in facilitating the initial writing exercise. The phone survey took less than 10 minutes to complete. Patient/family members were also given the option to complete the survey electronically using the Google Forms online survey platform. If participants were unable to be contacted by phone, they were mailed a paper copy of the survey with a return addressed envelope.

The 8 practitioners who participated in the original 3MMM research study were contacted by email at least 2 years after the initial study was completed. Practitioners were sent a 14-question online Google Forms survey (Table 2). Up to 3 email/text reminders were sent to practitioners to complete the survey. The online survey was managed by a medical student researcher not involved in the initial study.

Data were summarized in counts and percentages. Likert-type survey responses, from the original and follow-up surveys, were compared within individual respondents using the Mann-Whitney test. Dichotomous response categories, when available from both time points, were compared using McNemar change tests. Data were analyzed using SPSS (version 25.0 for Windows; IBM Corp, Armonk, NY). Statistical significance was determined by a P value of less than 0.05.

This research study was approved by the facility’s institutional review board.

RESULTS

Of the 96 patient/family member participants enrolled in the original study, 65 were reached for follow-up (68%). Fifty-one of these participants remembered completing the 3MMM intervention and agreed to respond to the follow-up survey. Two participants of the original study did not recall doing the activity and 2 declined survey participation. All participants who agreed to respond to the follow-up survey completed it (N = 61). Among the 8 practitioners who participated in the original study, all responded to the follow-up survey. Table 3 presents participant demographics as well as physical location of clinical contact.

Patient/Family Findings

First, we asked a few questions about patient/family participant perspectives related to the design of the 3MMM intervention. Of the 61 participants, 52 (85%) agreed that the 3MMM had been helpful. Fifty-four (89%) agreed it was important that practitioners and participants wrote together, and 56 (92%) indicated that it was important that both practitioner and patient shared what they wrote. Thirty-five (57%) reported experiencing similar stressful events since the hospitalization or outpatient visit during which the 3MMM intervention was completed. The change perceived helpfulness of the intervention was similar across all subgroups regardless of unit or relationship to the patient.

Table 1. Three-minute Mental Makeover follow-up survey for patients and family members

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do you remember doing the 3MMM writing activity?</td>
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<tr>
<td>2. We are doing a short follow-up survey that will take approximately 10 minutes. Would you be willing to answer a few questions about the 3MMM?</td>
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<td>3. Thinking back to when you originally participated in the 3MMM activity, which statement would best describe your experience:</td>
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<tr>
<td>a) I agree the 3MMM was helpful in reducing stress at the time.</td>
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<td></td>
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<tr>
<td>b) I disagree that participating in the 3MMM was helpful in reducing stress at the time.</td>
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<td></td>
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<tr>
<td>c) I neither agree nor disagree that the 3MMM was helpful in reducing stress at the time.</td>
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<tr>
<td>4. Was it important that you and your provider completed the activity at the same time?</td>
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<tr>
<td>5. Was it important that you both shared your responses with one another?</td>
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<tr>
<td>6. Have you experienced similar stressful times since you were here last year and completed the 3MMM activity?</td>
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<tr>
<td>7. How often have you used writing to help cope with stress?</td>
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<tr>
<td>a) Never (proceed to question 8)</td>
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<td></td>
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<tr>
<td>b) Occasionally (&lt; 1× per month) (proceed to question 7)</td>
<td></td>
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<tr>
<td>c) Often (&gt; 1× per month) (proceed to question 7)</td>
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<tr>
<td>8. Which writing technique have you used?</td>
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<td></td>
</tr>
<tr>
<td>a) 3MMM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Writing/journaling</td>
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<td></td>
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<tr>
<td>c) Both</td>
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<tr>
<td>9. What about the writing exercise did you find useful? What was not useful? (open ended)</td>
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</table>

3MMM = Three-minute Mental Makeover.
### Table 2. Three-minute Mental Makeover follow-up survey for practitioners

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes/No</th>
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<tbody>
<tr>
<td>1. Do you think it was important that you and the patient/family member completed the 3MMM activity at the same time?</td>
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<tr>
<td>2. Do you think it was important that you both shared your responses with one another after completing the 3MMM activity?</td>
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<tr>
<td><strong>Personal use of journaling/writing</strong></td>
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<tr>
<td>3. Before doing the 3MMM study, I used writing or journaling to help cope with difficult situations in my own life.</td>
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<tr>
<td>4. As a result of participating in the 3MMM study, I have used writing or journaling to help cope with difficult situations in my own life.</td>
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<td>5. In the past year, how often have you used writing to help cope with stress in your own life? (Never; Occasionally, &lt; 1x per month; Often, &gt; 1x per month; Very often, &gt; 1x per week)</td>
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<tr>
<td>6. If you have used writing in the past year to cope with stress, which writing technique(s) have you used? (3MMM, Writing/journaling, Both, I have not used writing to cope with stress)</td>
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<tr>
<td><strong>Clinical use and feasibility</strong></td>
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<td>7. Prior to participating in 3MMM research, did you use any type of writing intervention to help reduce stress patients/family members?</td>
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<td>8. Since participating in the original 3MMM study, have you used the 3MMM activity with patients/families?</td>
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<tr>
<td>9. In the past year, approximately how frequently have you used the 3MMM activity with patients/families? (Never or rarely; Occasionally, &lt; 1x per month; Often, &gt; 1x per month; Very often, &gt; 1x per week)</td>
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<tr>
<td>10. Weighing benefits vs barriers of utilizing the 3MMM activity with patient/family members, is the time investment justified? (Strongly agree, Agree, Neutral, Disagree, Strongly disagree)</td>
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<tr>
<td>11. How feasible would you rank the 3MMM activity for completion with patients as a regular part of clinical practice? (Very feasible, Somewhat feasible, Neutral, Somewhat unfeasible, Very unfeasible)</td>
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</table>

**Overall practitioner perspectives on use of 3MMM and writing**

- Improves patient communication
- Reduces practitioner stress
- Saves time during patient/family interactions
- Increases trust in patient-practitioner relationship
- Helps the patient and practitioner get to know one another better
- Allows one to feel closer/more connected to patients
- Helps the patient see the practitioner as a person
- Helps the practitioner to understand the patient better
- Helps the practitioner focus on overall well-being of patient and family
- Other ______________

None. I do not think the 3MMM was helpful to patients.

12. In your experience completing the 3MMM with patients, what do you think is helpful to practitioners about the activity? (Strongly agree, Agree, Neutral, Disagree, Strongly disagree)

- Other ______________

None. I do not think there are any barriers to completing the 3MMM.

*3MMM = Three-minute Mental Makeover.*
We then investigated patient/family participants’ personal use of writing to cope with difficult situations after their participation in the 3MMM study. At follow-up, 36 (59%) reported using writing to help cope with stress, compared to 23 (38%) at baseline ($P = 0.005$) (Figure 2). Of the 61 participants, 25 (41%) reported using writing/journaling, 2 (3%) reported using only the 3MMM, and 10 (16%) reported using both writing/journaling and the 3MMM. The change of use in writing was similar across all subgroups regardless of unit or relationship to the patient.

Patient/family participants also responded qualitatively regarding what they found useful about the 3MMM intervention itself, the impact of self-reflection, and the interaction with the practitioner or family members. A summary of the responses is presented in Table 4.

**Practitioner Findings**

Follow-up survey results are described for the 8 practitioners who facilitated the 3MMM intervention during the original study. A series of questions was asked related to practitioner perspectives.

First, related to the design of the 3MMM intervention, all 8 agreed it was important that practitioners and participants wrote together, and all indicated it was important that both parties shared what they wrote.

Next, practitioners reported personal use of writing to cope with difficult situations after their participation in the original study. Prior to participating, 3 of the 8 practitioners reported using writing/journaling, 2 of them using only the 3MMM, and 1 using both writing/journaling and the 3MMM. The change of use in writing was similar across all subgroups regardless of unit or relationship to the patient.

Patient/family participants also responded qualitatively regarding what they found useful about the 3MMM intervention itself, the impact of self-reflection, and the interaction with the facilitator. A summary of the responses is presented in Table 4.

**DISCUSSION**

The 3MMM intervention demonstrated long-term perceived benefits and was associated with lasting behavior changes in both patient/family participants and practitioners. Both groups reported increased personal use of writing to cope with stress after participating in the 3MMM intervention. In addition, there was a trend toward increased and sustained practitioner use of writing as a therapeutic tool with patient/families. Compared to the current literature, both our intervention design and the study structure feature unique aspects.

One unique feature is the facilitated format of the 3MMM intervention. A recent systematic review of EW...
interventions by Nyssen et al23 found that most are non-facilitated, where a written prompt is suggested and participants are instructed to write independently. Facilitated interventions involve direct interaction with a clinician and appear to hold more therapeutic potential. The authors of the review suggested that the interpersonal component may be an important contributor to perceived benefits related to the intervention.23

EW is a form of writing characterized by self-disclosure, and this self-disclosure appears to be an important mechanism of benefit related to EW use.27-29 Practitioner self-disclosure has been associated with increased perceived trust, rapport, and satisfaction in patient–practitioner relationships.30-33 With the 3MMM, the practitioner participates in and models completion of the exercise. This method of engagement appears beneficial not only for patients and families, but also for practitioners. 3MMM participants consistently agreed it was important to write together with their practitioner and share what they wrote. Many 3MMM participants also shared comments endorsing the importance of emotional expression as a helpful aspect of the 3MMM activity (Table 4).

The 3MMM is the first writing intervention described in the literature for use in medical settings by nonbehavioral health professionals in a variety of clinical disciplines. Other EW interventions may be time prohibitive for on-the-spot use within the clinical environment. Although many of these tools are multisession in structure (eg, writing for 15 minutes on 3 or 4 consecutive days), the 3MMM is brief (<10 minutes) and requires no formal writing or behavioral health training.34-36

The busy medical environment presents multiple barriers to successful implementation of an EW intervention as part of regular patient care. Despite the challenges of conducting a writing exercise in clinical practice, the 3MMM was ranked as both feasible and beneficial by the majority of practitioners, in addition to being a tool that they reported to continue to use with patients after the original study.
This study was conducted an extended period of time after the original 3MMM study, providing insight into possible long-term behavior changes. We are not aware of any prior EW studies involving patients with follow-up duration greater than 1 year. In addition, no previous research examines study participants’ long-term changes in writing behaviors or practitioners’ use of writing interventions.

Sustained behavior change may be an important metric. Although EW interventions have been associated with multiple benefits in the short-term, most effects faded after a few months,13,28 or changed over time.14,37-39 We, however, found that many of the original 3MMM study participants continued to use EW to deal with stress after this single intervention.

Limitations

EW appears to be potentially beneficial. However, there is no consensus regarding optimal use of it, including intervention design, dosing, frequency, and delivery method. There also appear to be multiple moderators of EW benefit, including gender, culture, personality, writing content, nature of trauma/stressor, health condition, disease severity, and level of available social support.7,12,23,24,28,29,38,40-47 Research related to the 3MMM likely faces similar challenges, although the current study did not evaluate these factors.

It is possible that clinical outcomes may have influenced the perception of care and affected the findings of perceived benefits of the 3MMM. However, we are unable to explore this possibility because clinical outcomes were not evaluated in the initial or follow-up studies.

As with any study of this type, possible limitations include convenience sampling and response bias. We sought to minimize response bias by having all follow-up calls be conducted by a medical student researcher not involved in the care of the patient. Other limitations include lack of a control group and subjective measurement methods. It is possible that the findings for this sample may not be generalizable to other populations.

Future Directions

Based on the findings in this study, additional studies of the 3MMM are warranted. Future areas of research might include controlled studies comparing the 3MMM to other writing interventions. It may also be of interest to investigate the impact of 3MMM use on patient satisfaction, rapport, and trust in patient/family–practitioner relationships.

CONCLUSION

The 3MMM is a brief, guided EW intervention that appears to have short- and long-term benefits for patients, families, and practitioners. Additional studies may be helpful in determining how the 3MMM can best be used by practitioners with their patients.

Disclosure Statement

The authors have no conflicts of interest to disclose.

Authors’ Contributions

Madeleine Schaufel, MS, RD, and Douglass Moss, BS, assisted with study and survey design, collected data, and assisted with manuscript development. Romana Donovan, MS, RD, CCRC, assisted with study design and implementation, and contributed to manuscript development. Yi Li, MS, assisted with study design, guided statistical analysis, and contributed to manuscript development. David G Thoele, MD, conceptualized and developed the 3MMM writing tool, designed and implemented the study, and directed manuscript development. All authors approved the final manuscript as submitted and agree to be accountable for all aspects of the work.

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