2023 Writing Contest graduate Winner

The Impact of a Commensality Intervention on Physician Burnout

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Abstract

Commensality, the act of eating together, when organized around facilitated discussion is an evidence-based intervention that can promote engagement and reduce physician burnout. The purpose of this pilot study is to evaluate the feasibility, acceptance, and impact of a commensality intervention for physicians. The Commensality Intervention was based on a Mayo Clinic model that consisted of 6, 2-hour dinner meetings at local restaurants over 6 months with facilitated discussion. Seven physicians participated, with controls matched by specialty and career stage. All completed the Maslach Burnout Inventory and Areas of Worklife Survey (MBI/AWS) at baseline, 6 months, and 12 months. Results were analyzed using Mann-Whitney tests for comparison of intervention group members to controls. At baseline, 4 of 7 in the intervention group and 3 of 7 controls met criteria for burnout. At 6 months, MBI improved in all dimensions: emotional exhaustion (EE) 24.3 to 17.2; depersonalization (DP) 7.1 to 5.1; personal accomplishment (PA) 40.0 to 43.3. Improvement in EE was significantly greater for intervention group members vs. controls ($P = .015$). Similarly, every AWS dimension (except reward) improved in the intervention group, with significant improvements in Workload ($P = .012$), Control ($P = .027$), and Community ($P = .039$). At 12 months, improvements in EE (21.6), DP (5.3) and PA (42.7) persisted but were attenuated, with none of the MBI/AWS changes from baseline statistically significant. Findings suggest significant improvements in physician burnout following the intervention, with attenuation at 12-months. Results will be used to support the broader implementation of commensality within the group practice.

Keywords

Commensality; burnout; facilitated discussion

Abbreviations

AWS = Areas of Worklife Survey
DP = Depersonalization
EE = Emotional Exhaustion
MBI = Maslach Burnout Inventory
PA = personal accomplishment

Introduction

Physician burnout is an epidemic in the US health care system. Physicians experience burnout at higher rates than the general population, with over 50% of physicians reporting at least 1 major component of burnout, including emotional exhaustion, depersonalization, and reduced sense of personal accomplishment.[1,2] Physician burnout is known to be detrimental to both the health of physicians and their ability to care for their patients.[3] Physicians who are burned out have a higher risk of substance use disorders and suicidal ideation,[4,5] and are more likely to make errors in patient care.[6] A 2017 meta-analysis found that physician burnout had a significant negative correlation with both quality of care ($r = -0.26$) and patient safety ($r = -0.23$).[7]

Commensality, the act of eating together, when organized around a facilitated curriculum incorporating elements of mindfulness, reflection, shared experience, and small-group learning, is an evidence-based intervention that can promote collegiality, engagement, meaning at work, and other well-being domains that align with physician burnout. Importantly, while West et al demonstrated that facilitated small group discussions during

protected work time improved physician empowerment and work engagement,[8] their recent follow-up study demonstrated that a more informal discussion outside of work, during a meal, and without a trained facilitator, provided similar improvements in a more comfortable and collegial setting, and at a lower cost.[9]

The purpose of this pilot study was to evaluate the feasibility, acceptance and impact of a structured commensality group intervention among physicians in a multispecialty academic group. The team used the Maslach Burnout Inventory (MBI) and Areas of Worklife Survey (AWS) which are commonly used validated measures of physician burnout and workplace satisfaction, as well as professional networking to assess the impact of a commensality intervention.[10,11] Data from this pilot study will be used to guide the implementation of a commensality-based intervention to address physician burnout.

Methods

This study used a quasi-experimental study design. Physicians who were either members of a wellness committee at the Queen's Medical Center, or who were interested in participating in a quality improvement project, were invited to participate. Of the 9 invited, 2 were unable to consistently attend a dinner meeting; the remaining 7 formed the commensality intervention group. This intervention was based on a Mayo Clinic model and consisted of 6 monthly 2-hour dinner meetings at local restaurants that took place between June and November of 2022.[9] The physician participants were allowed to choose the restaurants for their meetings, which occurred during their personal time, and were hosted on a rotating basis by one of the intervention group members. Participants took turns volunteering as facilitators, with each selecting a topic from a curated list of topics developed by the Queen's Center for Physician Professional Development and Wellness, based on the Stanford University and Mayo Clinic commensality models.[12,13] Topics were designed to stimulate discussion and focus on issues related to burnout frequently encountered by physicians. The topics selected for the sessions were "How do you deal with other physicians' unprofessional behavior?," "What was your perspective of success in your 20s?," "What would you like to do in the next 4-5 years and what would help you get there?," "Are you able to be as kind and compassionate to yourself as you are to your colleagues?," "What is most helpful in managing your stress?," "What wisdom would you like to pass on to your junior colleagues?," and "What personal growth have you attained from professional challenge in the past year?"

In addition to selecting the discussion topic, facilitators led the group discussion with no formal training. IRB approval was obtained from the University of Hawai'i (UH IRB protocol 2022-00532, approved as "exempt").

Each physician in the commensality intervention selected another physician of the same specialty and career stage to serve as a matched control. All completed the Maslach Burnout Inventory (MBI) and Areas of Worklife Survey (AWS) at baseline, at 6 months, and at 12 months.[10,11] The assessments were self-administered through an online survey website, www.mindgarden.com, which is a confidential online resource for psychological assessment tools. The MBI is the most widely used and validated tool for the assessment of physician burnout.[14] It categorizes burnout in 3 domains: emotional exhaustion (EE), personal accomplishment (PA), and depersonalization (DP). The AWS is a brief companion survey to the MBI that was designed to bridge the gap between basic and applied research by identifying target areas for interventions and key organizational areas of strength and weakness.[11] The AWS consists of 28 questions that cover 6 domains: workload, control, reward, community, fairness, and values. The commensality group also completed a survey on the attributes and weaknesses of the intervention and impact on interactions with other participants.

Consistent with other studies of physician burnout, the presence of burnout was defined as a score that exceeds standard thresholds on at least 1 of the MBI domains.[15] The change in burnout scores from baseline to 6 months and from baseline to 12 months was compared between the intervention group and the control group using a Mann Whitney test. The statistical software used for analysis was Stata, version 17 (StataCorp LLC, College Station, TX).

Results

As designed, the intervention group and matched control group each consisted of 4 males and 3 females, with 5 full-time and 2 part-time employees; each group had 2 hospitalists, 2 primary care physicians, 1 surgeon and 2 emergency medicine physicians. In the intervention group, 3 members have been at their current position for less than 3 years, and 4 members have held their position for more than 5 years. In the control group, 2 members have been at their position for less than 3 years, 2 members for 3-5 years, and 3 members for more than 5 years (**Table 1**). The overall attendance rate of the sessions was 88% (37 of 42 total possible sessions); 2 physicians missed 2 of the 6 sessions and 1 physician missed 1 session.

At baseline, 4 of the 7 (57%) intervention group members met criteria for burnout, with 3 exceeding the threshold for each EE $\geq$ 27 and DP $\geq$ 10. None exceeded the PA threshold of PA $\leq$ 33. Similarly, 3 of 7 (43%) of the control group met criteria for burnout, with 3 meeting the threshold for EE, 2 for DP, and 1 for PA **(Table 2)**.

At 6 months, MBI scores improved in all dimensions for the intervention group: EE 25.0 to 17.2; DP 7.1 to 5.1; PA 40.0 to 43.3 (**Table 2**). Improvement in EE was significantly greater for the intervention group vs. controls (P=.015). Similarly, every AWS dimension (except reward) improved, with significant

improvements in Workload (*P*=.012), Control (*P*=.027), and Community (*P*=.039) (**Table 3**). At 12 months, improvements in EE (21.6), DP (5.3) and PA (42.7) appeared to persist but were attenuated, with none of the changes from baseline in MBI or AWS reaching the level of statistical significance.

In the 12-month post-survey, 89% of intervention group members stated that during the intervention they were introduced to a new physician or practice that they were previously unaware of, 44% referred or received a patient referral from another member, and 33% had a "curbside consult" with a member which they believe improved patient care. Two-thirds of the participants "strongly agreed" and one-third "agreed" that the commensality group was a unique and valuable program that should be expanded.

Table 1. Demographics of the Commensality Intervention on Physician Burnout Intervention and Control Groups, n= 14

	Intervention Group (n=7) n (%)	Control Group (n=7) n (%)
Sex		
Male	4 (57%)	4 (57%)
Female	3 (43%)	3 (43%)
Work Status		
Full time	5 (71%)	5 (71%)
Part time	2 (29%)	2 (29%)
Time in Current Position		
<1 year	0 (0%)	1 (14%)
1-5 years	3 (43%)	3 (43%)
6-10 years	2 (29%)	2 (29%)
>10 years	2 (29%)	1 (14%)

Table 2. Maslach Burnout Inventory Scores for Physician Burnout Intervention and Control Groups[a]

	Emotional Exhaustion (EE)	Depersonalization (DP)	Personal Accomplishment (PA)
Intervention			
Baseline	25	7.1	40
6 months	17.2	5.1	43.3
12 months	21.6	5.3	42.7
Control			
Baseline	20.3	5.1	38
6 months	24.1	7.9	41.1
12 months	22.1	7	40.9
***P*-values[b]**			
Baseline to 6 months	**.015**	.094	.44
Baseline to 12 months	.28	.174	.56

[a] Higher burnout is associated with higher Emotional Exhaustion (EE) and Depersonalization (DP) scores, and lower Personal Accomplishment (PA) scores. Burnout thresholds were EE ≥ 27, DP ≥ 10, and PA ≤ 33.
[b] *P*-values calculated using Mann Whitney tests. Differences from baseline compared between Intervention and Control groups. *P*-value ≤ .05 is in bold.

Table 3. Areas of Worklife Survey Scores for Physician Burnout Intervention and Control Groups[a]

	Workload	Control	Reward	Community	Fairness	Values
Intervention						
Baseline	2.4	3.7	3.9	3.9	3.2	4.3
6 months	3.2	4.3	3.8	4.3	3.8	4.5
12 months	3	3.9	3.8	4.2	3.6	4.3
Control						
Baseline	3	3.6	3.6	4	3.1	3.8
6 months	2.8	3.5	3.8	3.8	3.1	3.9
12 months	2.7	3.6	3.9	4	3	4
***P*-values[b]**						
6 months	**.012**	**.027**	.48	**.039**	.073	.33
Baseline to 12 months	.095	.65	.7	.34	.123	.7

[a] Higher burnout is associated with lower scores for all domains. Scores range from 1 to 5.
[b] *P*-values were calculated using a Mann Whitney test. Differences from baseline compared between the Intervention and Control groups. *P*-values of ≤ .05 are in bold.

Discussion

This pilot study demonstrated the feasibility, acceptance, and potential impact of a commensality intervention that is coordinated and run by multispecialty physicians who are part of an academic medical practice. These findings suggest significant improvements in emotional exhaustion at 6 months, with slightly attenuated results at 12 months. The consistent improvement of burnout scores across the MBI and AWS dimensions demonstrates the potential for wide-ranging benefits of commensality as an intervention. It is notable that EE was the MBI dimension that showed significant improvement, as EE represents the basic stress level of an individual and is the most reliable of the MBI dimensions across different populations and settings.[11,16]

Interventions to address physician burnout are generally designed to work at the structural (workplace) or individual level. Although marked by studies with varied study designs, limited sample sizes, and inconsistent study endpoints, there is a growing body of evidence that well-designed and well-implemented interventions can significantly reduce physician burnout.[17] However, in a recent study, less than half of responding organizations implemented any type of burnout intervention, none of which involved structured commensality, and only 28% adopted a comprehensive approach to address clinician burnout, such as the American Medical Association's Joy In Medicine program.[18]

The results from this pilot study will help to guide the implementation of a commensality intervention in several ways. First, this pilot study demonstrates the feasibility, and strong support, of a largely self-run physician burnout program that occurs outside of work hours. Although many were hesitant about 'giving up' family and/or personal time, they considered participation in the commensality sessions to be valuable. Importantly, all participants expressed strong support for the program and felt that the time was well-spent. It is likely that the design of the intervention, specifically monthly, 2-hour dinners over the course of 6 months, helped to clearly define the time commitment needed to participate. However, attendance was not perfect. Future studies need to continue to emphasize the commitment necessary due to the longitudinal nature of commensality interventions. Second, while not the primary intent for this study, and, although limited by the small sample size, these data suggest that commensality may improve various domains of physician burnout. Third, this study has sparked interest in other physician and advanced practice providers, who are also willing to participate in commensality-based implementation studies.

To the authors' knowledge, this study is the first to assess the effect of a commensality intervention on physician professional collegiality. These results demonstrate that commensality has the potential to improve cooperation among physicians and make connections across specialties to improve patient care. The attenuated results at 12 months suggest the need for a longer-term intervention. Results from this pilot study will be used to support the broader implementation of commensality among physicians.

Limitations

There are several limitations of this study. First, the study sample size was small, and the study may have been underpowered to fully measure the impact of the commensality intervention using MBI/AWS. While intentionally designed as a proof-of-concept pilot study, the study does provide helpful information that will guide the implementation of a larger project. Second, most of the study participants were selected from a group who expressed interest in physician wellness, and the study participants in turn selected their own matched control. Thus, these results may suffer from selection bias and may not be generalizable. Third, the best frequency and duration of the commensality sessions, including the need for 'maintenance' sessions is unclear. Fourth, the study only included physicians, as Advanced Practice Providers (APPs) were not part of the medical group at the time of the intervention. APPs will be part of future commensality intervention projects.

Conclusion

In summary, data from this pilot study suggest that a commensality intervention is a feasible, acceptable, and potentially impactful way to address burnout. While no single intervention will appeal to all providers, pilot tests such as this one may help to guide the implementation of evidence-based interventions. Further work needs to be done to investigate the cost and sustainability of commensality interventions, as well as its impact on physician health and patient outcomes.

Conflict of Interest

None of the authors identify any conflict of interest.

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