Naturopathic Medicine and Group Visits: A Natural Alignment

Leslie Solomonian,[1] ND, MPH, **Zeynep Uraz,**[1] ND,
Shehab El-Hashemy,[2] MBChB, ND, Med, **Alan Vu,**[1] ND, and **Tori Hudson,**[2,3,4] ND

ABSTRACT

Group visits are a delivery mode well-suited to the principles of naturopathic medicine. Group visits are cost-effective, allowing practitioners to provide thorough lifestyle education, an important domain of both prevention and management of health concerns, to more participants. The interactive nature of group visits adds unique support, motivation and learning opportunities that one-on-one appointments often cannot provide. When structured opportunities are created for reflection, peer exchange and goal setting, the likelihood of behaviour change appears to be enhanced. Group visits may also benefit practitioners, allowing for greater efficiency and reduced risk of burnout, ultimately enabling greater impact. This paper maps the alignment of group visits to naturopathic principles, highlighting benefits, risks and strategies to harness this effective approach to health care.

Key Words Naturopathic practice, social determinants, behaviour change

INTRODUCTION

Group medical/educational visits (GMEVs) consist of a group of participants with similar backgrounds or needs coming together for educational sessions facilitated by a practitioner.[1] Three of the authors (LS, ZU, AV) have experience designing, delivering, and evaluating group visits for the provision of naturopathic medicine and education to particular populations. Anecdotally, we have observed the value of this approach, in particular its alignment with the principles of naturopathic practice. This paper is the outcome of a scholarly process of mapping the evidence-based benefits of GMEVs to naturopathic principles.

In order to more objectively examine the value of GMEVs to the provision of naturopathic care, two additional authors were invited to participate in a process of critical analysis. We drew on existing reviews (as opposed to evaluations of individual programs) to engage in this process. We systematically mapped the evidence for the benefits of GMEVs to the principles of naturopathic medicine. The relationships are described in the text. We then mapped attributes and principles of core frameworks of learning to the benefits of GMEVs to highlight the importance of using an evidence-informed approach to design and delivery. The map is shown in Figure 1.

Anecdotes provided by the authors who have facilitated programs are woven throughout the paper to provide examples and give colour to the theoretical perspective; we encourage readers to revisit these anecdotes after finishing the entire paper to identify examples of the educational frameworks described.

Developing the knowledge and skills to effectively plan and deliver group sessions involves more than this perspective article can hope to provide. As with all naturopathic care, there are myriad approaches that can be taken. Although we have synthesized our findings to make recommendations for starting to plan and implement group visits, we encourage motivated readers to explore detailed analyses of specific methodologies, conditions, and approaches for their population of interest. With this paper, we have attempted to provide inspiration and a starting point for exploration of this approach to naturopathic care.

Benefits of Group Visits

Group sessions may yield greater success than one-on-one clinical encounters for some medical and behavioural outcomes.[2] Existing reviews have looked broadly at the beneficial impact of GMEVs, including improved access to health care, ability of practitioners to serve more patients, and greater value per visit, all of which have the potential to improve efficiency and effectiveness for all involved.[3-5] Both providers and participants identify greater personal satisfaction and self-esteem associated with participation.[2,4]

There are a few dominant conditions for which literature regarding group visits is readily available. Group visits for type 2 diabetes, for example, have been well-studied. Existing reviews have noted there is positive benefit to this approach for these and other

Correspondence to: Leslie Solomonian, 1255 Sheppard Avenue East, Toronto, ON M2K 1E2, Canada. **E-mail:** lsolomonian@ccnm.edu

To cite: Solomonian L, Uraz Z, El-Hashemy S, Vu A, Hudson T. Naturopathic medicine and group visits: a natural alignment. *CAND Journal*. 2022;29(2):9-17. https:/doi.org/10.54434/candj.110

Received: 17 February 2022; **Accepted:** 24 May 2022; **Published:** 28 June 2022

© 2022 Canadian Association of Naturopathic Doctors. For permissions, please contact candj@cand.ca.

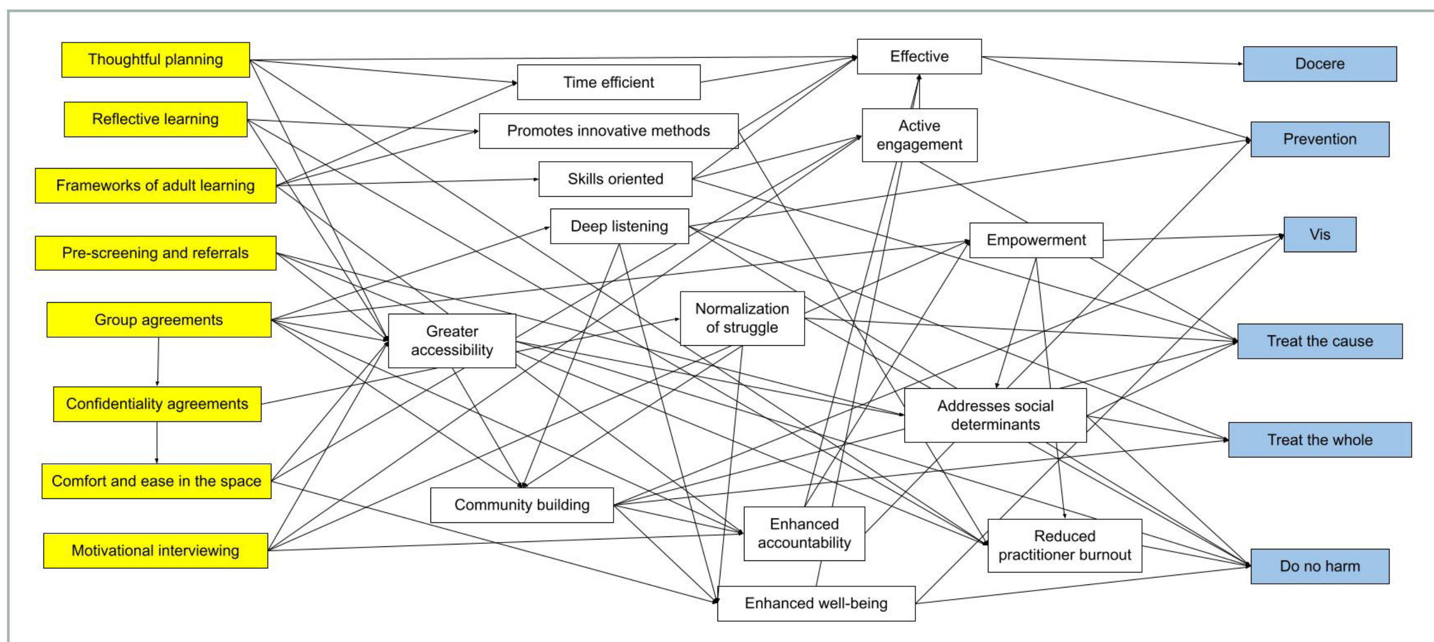

FIGURE 1 Mapping the alignment between naturopathic principles and group visits. Best practices for evidence-informed design of group visits (yellow) yield benefits (white) that align with and fulfill the principles of naturopathic medicine (blue).

conditions in the domains of patient-oriented (e.g., self-esteem, quality of life), behaviour-oriented (e.g., dietary changes), and disease-oriented (e.g., BMI, HbA1C) outcomes.[6,7] It is hypothesized that this likely translates to cost-savings in the healthcare system through the value of prevention and the building of participant self-efficacy.[7,8]

Alignment of GMEVs with Naturopathic Principles

Many of the benefits noted in the literature exemplify the philosophy of naturopathic medicine.

Docere (Doctor as Teacher)

Effective doctors must be effective teachers; however, practitioners often lack the time for thorough education in one-on-one appointments.[5] GMEVs are an efficient model for delivering education,[2] and may benefit both practitioners and patients by allowing for more creative freedom in educational approaches.[1]

GMEVs allow patients to spend more time with the practitioner while engaging with the material. This allows for more thorough interaction with concepts and skills,[9] which may promote a nuanced and personally applicable exploration. GMEVs ideally align with the concepts of adult learning, which emphasize relevance and internal motivation as well as goal-oriented, active, and self-directed learning,[10] all of which support better patient outcomes.[9]

LS—with the support of CCNM students—designed, delivered and evaluated multiple iterations of a six-session group-based program for parents of young children called "Healthy Families, Healthy Kids," (HFHK) the goal of which was to promote positive determinants of pediatric health.

> "For community members participating in the HFHK program[11]—many of whom are marginalized and have low health literacy[12] or limited access to foods—basic principles of nutrition can be tricky. I ask a small group to organize a deck of cards containing pictures of common foods in whatever way they choose. Using manipulables with visual prompts in a group activity engages multiple styles of learning (cognitive, visual, kinesthetic, social, auditory), and helps to overcome language barriers (common in this particular population). Participants tend to start by organizing the cards into traditional "food groups," which allows us to talk about macronutrients. When organized by meals, we discuss strategies for optimizing glycemic load. When organized by colour, we discuss phytonutrients and micronutrition. When cards have been organized along a continuum of "closer to the earth," we have had rich conversations about the relationship between people and the planet. I am flexible with what I reinforce based on what I hear from the group, correcting misconceptions, filling gaps, and—very importantly—affirming what is already known. Multicultural groups share what is common in their tradition; how foods are grown or combined; and often—again, very importantly—where these foods can be accessed in the community." (LS)

Praevenic (Prevention)

Preventive medicine can be neglected in one-on-one care due to lack of time in appointments.[13,14] Structured opportunities within GMEVs for reflection, peer exchange, and goal setting enhance the likelihood of behaviour change.[6,15,16] This impact has been best documented among individuals with diabetes mellitus, for which GMEVs have been shown to improve glycosylated hemoglobin (HbA1C) values.[6] Because of the model's greater accessibility and

cost effectiveness, GMEVs allow more members of the community to be reached, resulting in an overall economically sustainable practice model.

> "In the HFHK program, we focused on six key topics important for caregivers of young children. While there was space in each session for participants to bring up active concerns or problems, the focus was squarely on health promotion strategies for kids. When we studied the effects of the program, one of the outcomes identified among participants was a greater sense of confidence as a caregiver to keep their kids healthy."[11] (LS)

Tolle causum (Identify and Treat the Cause); *Tolle totum* (Treat the Whole)

Focusing on the spectrum of relevant determinants of health enables participants to explore the cause(s) of their own dis-ease. By grouping populations together (fertility, diabetes, parenting, menopause, etc.), we can more closely align the topics and activities with the cause(s). We have found that when participants are given structured opportunities to set and share goals, GMEVs allow for a more nuanced exploration of content and an opportunity to identify how it is personally applicable. Participants may develop insights about themselves as they listen to the circumstances and stories of others in the group, who may also be better positioned to anticipate obstacles and potential solutions than the naturopathic doctor. This process cultivates empowerment by building relationships and community, key domains of psychosocial well-being.[2] Although most programs studied in the reviews on which this analysis drew primarily focused on disease-oriented outcomes such as biomarkers of diabetes mellitus, naturopathic doctors are most interested in treating the person living with a disease. That GEMVs seem to improve both disease-oriented and person-oriented outcomes makes this approach highly relevant to the holistic goals of naturopathic practice.

> ZU and AV designed a six-week program for individuals who were undergoing active treatment at a fertility clinic in downtown Toronto. The objective of the group-based program was to deliver evidence-based dietary and lifestyle advice to participants. "The ability to draw on different participants' perspectives and experiences helped participants implement the diet and lifestyle changes discussed. Participants shared recipes and time-saving cooking methods. In the post-program survey, participants mentioned benefiting from group ideas for troubleshooting challenges in implementing changes." (ZU and AV)

Causes of disease go beyond individual choices.[17] Treating the whole involves considering social and ecological determinants of health. Thoughtful design of group-based programs takes social, cultural, economic, and ecological determinants into consideration and seeks to destigmatize health struggles. This may be particularly relevant when working with populations marginalized by systemic racism and capitalism.[12,18] Approaching care through relationship building and community may itself serve to break down these structures.[19,20] One method to support a group identifying strategies to address obstacles is community asset mapping.[21]

> "One of the most rewarding experiences of running group programs is creating space for and witnessing group problem-solving. When participants live in the same community, tips on where to find certain foods or what affordable programs are available for recreation add so much more to the value than what I could provide on my own. The group removes the focus from me, swiftly identifying common obstacles to cure and solving them together." (LS)

> "We aim to delve into the mental and emotional, but it is often a time challenge in one-on-one settings. One of our favourite things about the group sessions was watching participants lend comforting words, helpful alternate perspectives, and compassionate ears. It normalized their experiences. It was wonderful to see community building within the group." (ZU and AV)

Vis medicatrix naturae (The Healing Power of Nature)

Naturopathic practitioners uphold the principle of reliance on an inherent self-healing process. However, myriad factors impact the ability of this *vis medicatrix naturae* to maintain homeostasis, including persistent or intolerable stress (psychological or physiological). The healing potential within an individual is facilitated when the experience, perception, or embodiment of stress are diminished or removed. This may occur in GMEVs through the development of knowledge and skills to optimize physiological conditions for health (such as improving nutrition or movement) or skills and strategies to process and navigate psychological or social stressors (for example, group cognitive-behavioural workshops). GMEVs can offer normalization and destigmatization of struggle through opportunities for vulnerability, especially if others are witnessed doing the same.[3] Skillfully facilitated groups can serve to build connection and community, which are important determinants of good health. Improved healing capacity associated with stress reduction has been shown to be mediated by modulation of the immune system[22] associated with the upregulation of endorphins, oxytocin, and serotonin, and the reduction of cortisol.[23]

The healing power of nature can also include making choices more consistent with one's own values, beliefs, and intentions in life. In essence, becoming true to one's own nature. This concept is rich material for group conversation, possibly similar to the mutual support that occurs in 12-step fellowship.[24,25] If the *vis* is viewed as an element of the spirit, the deep listening and flow of energy between participants and facilitator could also be a mechanism by which the *vis* is enhanced.[26]

"By the last few sessions, it was heartening to see participants naturally gather and check in with each other, interact with genuine smiles and even sometimes hug each other." (ZU and AV)

Group visits might also be able to incorporate practical aspects of facilitating a connection with nature. GMEVs could incorporate outdoor walks, or plant exploration. "As a founding member of an educational community garden, I have hosted workshops in which participants meet and learn from the plants in the garden, as well as those growing wild in the surrounding park space. I always draw on participants' observations of the plants that attract their attention and include a practical component, such as making a tea or a poultice, so that participants leave feeling more capable of doing so on their own. Having the opportunity to use all their senses enhances learning and accessibility." (LS)

Primum non nocere (First, Do No Harm)

The "business" of naturopathic practice can be draining, due to compassion fatigue, financial strain, and the challenges of motivating adherence. GMEVs can improve the well-being of the practitioner, maintaining or building their capacity to continue to serve. Observing relationships being built, epiphanies occurring in community, and positive outcomes is deeply satisfying.[2,27] GMEVs can enhance accountability, easing that burden for the practitioner.[4,27] The freedom that group visits offer to practice creatively can enhance cognitive and emotional well-being.

"Having members of the group interact with each other helped keep the material fresh so that it wasn't always just us presenting, decreasing boredom. It really did make the experience more enjoyable and less tiring; our group sessions were something we really looked forward to as facilitators!" (ZU and AV)

The ability of a doctor to practice with a sense of social responsibility and purpose also greatly impacts their own well-being, which speaks to the spirit of "right livelihood."[28] However, seeking to practice this way often requires sacrifice on the part of the practitioner in the form of money or time, which can challenge one's coping reserve. The reduced cost per participant inherent in group visits and/or socially innovative partnerships improves access for individuals and communities that might not otherwise benefit from naturopathic care. It also allows for shared responsibility and recruitment, easing the burden of marketing from the practitioner and targeting recruitment in a more personalized way.[2] For example, the Healthy Families iterations offered in partnership with Ontario Early Years Centers were promoted by centre staff personally to community members who were likely to be interested in the subject matter. These individuals were more likely to engage in the program and indicate value from participating.[11]

The literature exploring GMEVs does not suggest that significant harm has been documented due to this approach.[3,29] However, education generalized to a group may fail to meet the needs of individual participants. This could cause harm through unheeded activation, or inappropriate application. Group visits also introduce an expectation of vulnerability, which may enhance their value[3] but may also expose participants to the risk of confidentiality breaches, or the group to disruption. Strategies to minimize the risk of harm will be discussed below.

IMPLEMENTATION

Applying Evidence-Informed Educational Frameworks

Just as a medicinal herb will only be effective if delivered in the right form in the right dose to the right person at the right time, group visits must be thoughtfully developed and delivered to be effective. Methodologies should be thoughtfully selected for specific learners (e.g., age, culture, language), concerns (e.g., diabetes, anxiety, pregnancy), intended outcome (e.g., disease-oriented vs. behaviour-oriented; treatment vs. primary or secondary prevention), and context (online vs. in-person; single workshop vs. ongoing program; group familiar with one another vs. strangers). The authors with experience delivering GMEVs have deliberately drawn on evidence-informed educational frameworks to optimize benefit to group participants (although there is evidence for the value of GMEVs for youth, the authors' experience is with adults). It is beyond the scope of this paper to delve into the details of these frameworks, but practitioners interested in offering GMEVs are encouraged to familiarize themselves with the following core concepts and theories.

Didactic lecturing rarely works. Facilitation strategies that centre attributes of adult learners, integrate diverse learning preferences (e.g., cognitive, visual, spatial, verbal), and enable application of the material with other participants have a significant impact on outcomes,[9] and preparedness is critical to ensure the most effective use of time.[4,30] Bloom's taxonomy supports the educator in determining appropriate objectives of the program or workshop,[32,33] which then provides direction for activity planning. Knowles's principles of adult education can guide the design of program elements to maximize effectiveness (Figure 2).[10] Didactic lecturing rarely works. Frates et al. provide a broad overview of considerations when creating a model for group delivery,[27] and a plethora of available resources offer inspiration for planning (Appendix 1).

Given that GMEVs are particularly well suited to conditions that benefit from behaviour change, the framework of motivational interviewing can also be effective in empowering participants.[16] Hall et al. provide a concise summary of the principles and strategies within this framework.[34] The collective process of identifying objectives, naming obstacles, and setting specific and feasible goals allows participants to individualize the application of content and increases the likelihood of success, inspired both by others' experiences and a sense of group accountability.[27]

"In a workshop at my local library intended to encourage physical movement, the design required participants to move. I drew circles on the floor with string, representing the intersection between "cardiovascular activity,"

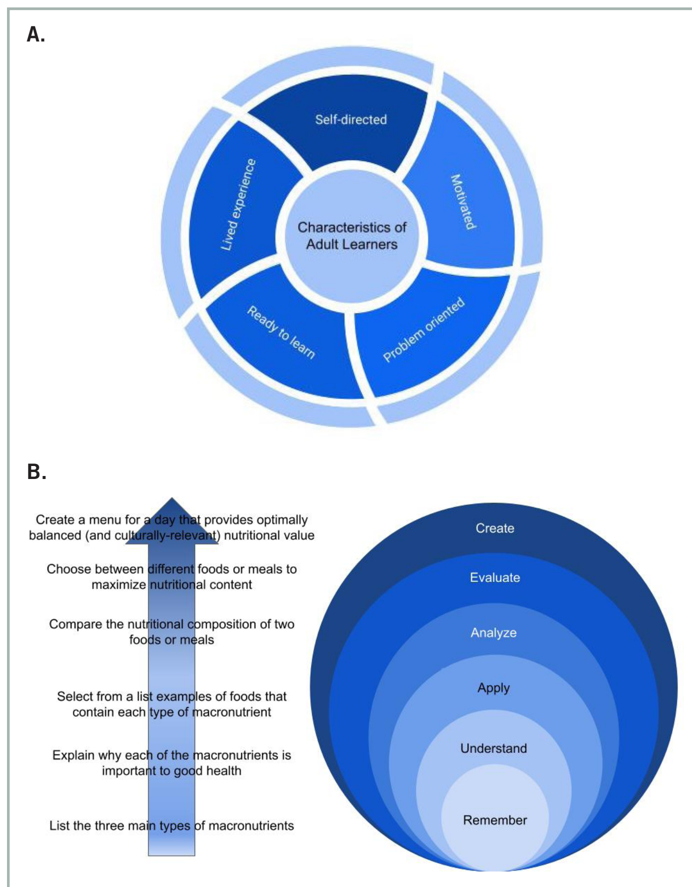

FIGURE 2 Knowles's principles of adult learning (A) and Bloom's taxonomy of higher learning (B). Incorporating assumptions about adult learners and higher-level educational strategies into workshop design will enhance the likelihood of effectiveness.

"mobility activities," "strength-building activities," and "active lifestyle." After defining these domains, I provided the group with a stack of cards representing the benefits of different kinds of movement, as well as cards naming various activities. Participants worked together to place the cards in the intersecting circles, requiring them to move about the room, bend down, and interact at a higher level of Bloom's taxonomy. I also asked participants to physically position themselves along a 0 to 10 spectrum for each domain, in accordance with motivational interviewing methods. I invited reflections on obstacles and barriers, and the group generated ideas and strategies to overcome them. Finally, participants worked in pairs to derive a goal related to their experience and share with the group." (LS)

Overprepare

In order to be flexible and responsive to the fluid needs of individual groups, practitioners often feel best when they are overprepared. That requires competence with basic educational strategies, strong comfort with the content, familiarity with the plan, and having all materials prepared in advance. It helps to have a systematic way of creating lesson plans (a template can be found in

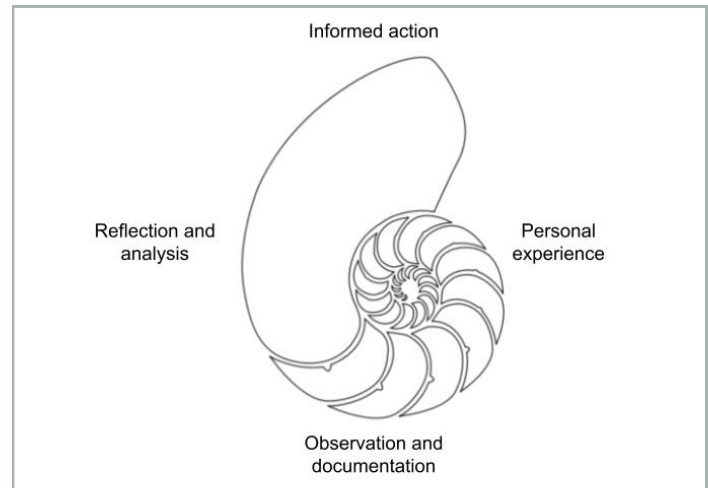

FIGURE 3 The experiential learning cycle (adapted from Kolb and Kolb[35]). Facilitators as well as participants should be engaged in learning. Actively reflecting on experiences and critically modifying one's approach is more likely to lead to growth.

Appendix 2) and to deliberately engage in the experiential learning cycle proposed by Kolb (Figure 3) to improve effectiveness over time.[35] The steps are:

1. Design and deliver an evidence-informed workshop.
2. Actively reflect on what went well and what could have been improved. This is always enhanced by seeking constructive feedback from participants.
3. Return to the evidence base or consult with other sources to identify strategies to improve on the next iteration.
4. Repeat.

Promoting Comfort and Safety

Success is contingent on participants feeling comfortable and safe. The space in which a workshop is offered may not be fully within the control of the facilitator, but there are a few key considerations. For example:

- What is the likelihood of external noise, or the chance of interruptions?
- Where is the nearest toilet and access to drinking water?
- Are participants prepared for the temperature of the space; if you are going outside, do they have appropriate clothing?
- Is childcare being provided?
- Do you have access to tables and chairs?
- Do you have access to a computer and projector?
- Is the space physically accessible?
- Will you need a translator?

In GMEVs, participants are invited to be vulnerable. It is helpful to establish group expectations and commitments at the start of a workshop or series. Some suggestions are listed below:

- Confidentiality: personal information is not shared outside the group

- Right to pass: everyone can determine the degree to which they would like to participate
- Step up or step back: those who tend to participate easily challenge themselves to give space to others; those who tend to hold back challenge themselves to be brave
- Assume good intentions: everyone is doing the best they can at any given moment, and everyone has their own lived experience
- Two ears, one mouth: active listening promotes everyone's learning; this includes not interrupting or talking while someone else is talking
- Group well-being: the success of individuals in this group is a reflection of the health of the group overall; this includes keeping our attention on the topic of focus
- Personal responsibility: participants are encouraged to use 'I' statements, both in the context of speaking of their own experience, and responding to others' sharing

Having participants sign a confidentiality agreement ensures all are clear about expectations and limits.[36] Informed consent discussions should centre around the potential benefits and harms of participation, including psychological distress that may be caused by difficult discussions. Facilitation strategies can both promote trust and help a group navigate through disruption or distraction (it may be appropriate to screen participants for attributes that may disrupt the nature of the program). Individuals must be aware ahead of time that if needs arise that are beyond the scope of the goals of the group model, appropriate referrals will be made. As was identified in the study by Wong et al, group visits may be an excellent opportunity for and avenue towards greater collaborative care, especially if offered in a community health centre setting.[36]

> "Once baseline safety was established within the group, the opportunity to interact with the material in a group of peers allowed for different and deeper engagement. Listening to peers' successes and as well as obstacles inspired many. Feedback included comments such as 'I liked listening and hearing from everyone' and '(the group format) was very comfortable, and in fact it was motivating.'" (ZU and AV)

Billing Considerations

Practitioners can bill GMEVs as a fee-for-service at a lower rate than a private appointment. If a one-on-one relationship has been established between a participant and a naturopathic doctor, it may be possible to invoice as a naturopathic visit; it is important to be clear on the invoice that the session was delivered in a group so that insurance providers have transparency about what is being submitted.

The authors are keen on cultivating socially innovative models, which enhance access for marginalized community members, and build relationships within the community. Partnerships with community health or social centres, libraries, places of worship, schools, or private funders can harness private and public dollars to the benefit of individuals and populations who may otherwise not have access to naturopathic care or education, while fairly compensating the practitioner for their time and expertise. Capturing data about the impact of the program (satisfaction, behaviour change, or health-specific outcomes) can build the case for the value of such approaches, increasing the likelihood of future partnerships and funding. We suspect that there is a cost-benefit to this kind of program, and this may be an avenue through which naturopathic principles can be integrated into public health promotion.

CONCLUSION: A CALL TO ACTION

Naturopathic medicine is beautifully suited to group-based delivery. There is a tremendous gap in health promotion education in the primary healthcare system; naturopathic doctors claim excellence in this domain (*docere*). Group-based care may increase the potential for lifestyle change (*praevenic*), address root causes of disease (*tolle causum*), including psychosocial determinants of health (*tolle totum*), and effectively liberate the individual's natural capacity to heal (*vis medicatrix naturae*). Not all GMEVs are alike. To optimize effectiveness, methodologies must be carefully selected and grounded in evidence. We recommend that naturopathic medical schools and continuing education programs offer evidence-informed opportunities to develop these skills in order to maximize benefit and minimize harm.

AUTHOR AFFILIATIONS

[1]Canadian College of Naturopathic Medicine, Toronto, ON, Canada; [2]National University of Natural Medicine, Portland, OR, USA; [3]Bastyr University, Seattle, WA; [4]Southwest College of Naturopathic Medicine, Phoenix, AZ, USA.

ACKNOWLEDGEMENTS

The authors wish to thank the participants of their various group delivery programs, the students who participated in their delivery and assessment, and Dr. Laura Macleod, ND, for her valuable contributions to this manuscript.

CONFLICTS OF INTEREST DISCLOSURE

We have read and understood the *CAND Journal*'s policy on conflicts of interest disclosure and declare the following interests: AV, LS, and ZU all engage in coordinating, delivering and assessing group medical and educational visits, and are committed to promoting their use in naturopathic practice. All these authors profit from some of their initiatives. No other competing financial interests exist for any of the authors.

FUNDING

This research did not receive any funding.

REFERENCES

1. Noffsinger E, Sawyer DR, Scott JC. Group medical visits: a glimpse into the future? (Enhancing Your Practice). *Patient Care*. 2003;37(3):18.
2. Lavoie JG, Wong ST, Chongo M, Browne AJ, MacLeod ML, Ulrich C. Group medical visits can deliver on patient-centered care objectives: results from a qualitative study. *BMC Health Serv Res*. 2013;13:155. https://doi.org/10.1186/1472-6963-13-155
3. Wong ST, Browne A, Lavoie J, Macleod ML, Chongo M, Ulrich C. Incorporating group medical visits into primary healthcare: are there benefits?. *Health Policy*. 2015;11(2):27-42.
4. Jones KR, Kaewluang N, Lekhak N. Group visits for chronic illness management: implementation challenges and recommendations. *Nurs Econ*. 2014;32(3):118-147.
5. Patel Saxena S. Leveraging time with lifestyle-based group visits. *Am J Lifestyle Med*. 2016;10(5):330-337. https://doi.org/10.1177/1559827616638018

6. Housden LM, Wong ST. Using group medical visits with those who have diabetes: examining the evidence. *Curr Diabetes Rep*. 2016;16(12):134. https://doi.org/10.1007/s11892-016-0817-4

7. Housden L, Wong ST, Dawes M. Effectiveness of group medical visits for improving diabetes care: a systematic review and meta-analysis. *CMAJ*. 2013;185(13):E635-E644. https://doi.org/10.1503/cmaj.130053

8. Quiñones AR, Richardson J, Freeman M, et al. Group visits focusing on education for the management of chronic conditions in adults: a systematic review [Internet]. Washington (DC): Department of Veterans Affairs (US); 2012 Dec. RESULTS. Available from: https://www.ncbi.nlm.nih.gov/books/NBK184310/

9. Kirk JK, Devoid HM, Strickland CG. Educational strategies of diabetes group medical visits: a review. *Curr Diabetes Rev*. 2018;14(3):227-236. doi: 10.2174/1573399813666170203111851

10. McGrath V. Reviewing the evidence on how adult students learn: an examination of Knowles' model of andragogy. *Adult Learn Irish J Adult Commun Educ*. 2009;99:110.

11. Solomonian L, Kwan V, Bhardwaj S. Group-based naturopathic education for primary prevention of noncommunicable disease in families and children: a feasibility study. *J Altern Complement Med*. 2019;25(7):740-752. doi:10.1089/acm.2019.0067

12. Schillinger D. The intersections between social determinants of health, health literacy, and health disparities. *Stud Health Technol Inform*. 2020;269:22-41. https://doi.org/10.3233/SHTI200020

13. Spring B, King AC, Pagoto SL, et al. Fostering multiple healthy lifestyle behaviors for primary prevention of cancer. *Am Psychol*. 2015;70(2):75-90.

14. Brotons C, Björkelund C, Bulc M, et al. Prevention and health promotion in clinical practice: the views of general practitioners in Europe. *J Prev Med*. 2005;40(5):595-601.

15. Polak R, Pojednic RM, Phillips EM. Lifestyle medicine education. *Am J Lifestyle Med*. 2015;9(5):361-367.

16. Livia B, Elisa R, Claudia R, et al. Stage of change and motivation to a healthier lifestyle before and after an intensive lifestyle intervention. *J Obes*. 2016;2016:6421265.

17. Sweeney E. The role of healthcare professionals in environmental health and fertility decision-making. *New Solut*. 2017;27(1):28-50. https://doi.org/10.1177/1048291117691074

18. Castillo EG, Ijadi-Maghsoodi R, Shadravan S, et al. Community interventions to promote mental health and social equity. *Curr Psychiatry Rep*. 2019;21(5):35. https://doi.org/10.1007/s11920-019-1017-0

19. National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice; Committee on Community-Based Solutions to Promote Health Equity in the United States; Baciu A, Negussie Y, Geller A, et al., editors. Communities in action: pathways to health equity. Washington (DC): National Academies Press (US); 2017 Jan 11. 3, The Root Causes of Health Inequity. Available from: https://www.ncbi.nlm.nih.gov/books/NBK425845/

20. Smith-Morris C, Rodriguez S, Soto R, Spencer M, Meneghini L. Decolonizing care at diagnosis: culture, history, and family at an urban inter-tribal clinic. *Med Anthropol Q*. 2021;35(3):364-385. https://doi.org/10.1111/maq.12645

21. Douglas JA, Subica AM, Franks L, et al. Using participatory mapping to diagnose upstream determinants of health and prescribe downstream policy-based interventions. *Prev Chronic Dis*. 2020;17:E138. https://doi.org/10.5888/pcd17.200123

22. Troyer EA, Kohn JN, Hong S. Are we facing a crashing wave of neuropsychiatric sequelae of COVID-19? Neuropsychiatric symptoms and potential immunologic mechanisms. *Brain Behav Immun*. 2020;87:34-39. https://doi.org/10.1016/j.bbi.2020.04.027

23. Pascoe MC, Thompson DR, Ski CF. Yoga, mindfulness-based stress reduction and stress-related physiological measures: a meta-analysis. *Psychoneuroendocrinology*. 2017;86:152-168. https://doi.org/10.1016/j.psyneuen.2017.08.008

24. Kelly JF. Is Alcoholics Anonymous religious, spiritual, neither? Findings from 25 years of mechanisms of behavior change research. *Addiction*. 2017;112(6):929-936. https://doi.org/10.1111/add.13590

25. Davidson L, White W, Sells D, et al. Enabling or engaging? The role of recovery support services in addiction recovery. *Alcohol Treat Q*. 2010;28(4):391-416. https://doi.org/10.1080/07347324.2010.511057

26. Sutherland E. Spirituality in the medical encounter: the grace of presence. *Perm J*. 2005;9(3):73-74. https://doi.org/10.7812/tpp/05-041

27. Frates EP, Morris EC, Sannidhi D, Dysinger WS. The art and science of group visits in lifestyle medicine. *Am J Lifestyle Med*. 2017;11(5):408-413. https://doi.org/10.1177/1559827617698091

28. Solomonian, L. Resilience as right livelihood. *The Pulse (Journal of the Ontario Association of Naturopathic Doctors)*. Fall 2020.

29. Miller D, Zantop V, Hammer H, Faust S, Grumbach K. Group medical visits for low-income women with chronic disease: a feasibility study. *J Women's Health*. 2004;13(2):217–25.

30. Twaddell JW. Educating parents about vitamin K in the newborn using Knowles' theory of adult learning principles as a framework. *Crit Care Nurs Q*. 2019;42(2):205-207. https://doi.org/10.1097/CNQ.0000000000000256

31. Gilmer C, Buchan JL, Letourneau N, et al. Parent education interventions designed to support the transition to parenthood: a realist review. *Int J Nurs Stud*. 2016;59:118-133. https://doi.org/10.1016/j.ijnurstu.2016.03.015

32. Krau SD. Creating educational objectives for patient education using the new Bloom's taxonomy. *Nursing Clinics*. 2011;46(3):299-312.

33. Williams AE. Promoting meaningfulness by coupling Bloom's taxonomy with adult education theory. *Transform Dialogues Teach Learn J*. 2017;10(3).

34. Hall K, Gibbie T, Lubman DI. Motivational interviewing techniques: facilitating behaviour change in the general practice setting. *Australian Family Physician*. 2012;41(9):660-667.

35. Kolb A, Kolb D. Eight important things to know about the experiential learning cycle. *Australian Educational Leader*. 2018;40(3):8-14. (https://learningfromexperience.com/downloads/research-library/eight-important-things-to-know-about-the-experiential-learning-cycle.pdf)

36. Wong ST, Lavoie JG, Browne AJ, et al. Patient confidentiality within the context of group medical visits: is there cause for concern?. *Health Expect*. 2015;18(5):727-39.

APPENDIX 1 – RECOMMENDED RESOURCES FOR WORKSHOP PLANNING

- Seeds for change; https://seedsforchange.org.uk/tools.pdf
  - Facilitation tools for meetings and workshops
- SessionLab; https://www.sessionlab.com/
  - Online workshop design software and resources
- Readiness Ruler; https://iprc.iu.edu/sbirtapp/mi/ruler.php
  - Interactive motivational interviewing tools
- The Community Mapping Toolkit; https://ucanr.edu/sites/CA4-HA/files/206668.pdf
  - Community mapping toolkit

APPENDIX 2 – WORKSHEET TEMPLATE FOR PLANNING A GROUP SESSION

Characteristics/needs/goals of participants:

Characteristics of space/setting:

Topic:

Themes/Questions:

Time available:

Objectives (action words; what should participants be able to DO by the end?):

Key references/resources:

Quick reference outline:

Time	Activity	Materials needed	Objectives addressed

Detailed outline of each activity: