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Motivational interviewing to affect behavior change in geriatric patient population of older adults

Abstract

This article provides a review of extant literature on Motivational Interviewing (MI) and its effect on medical/biopsychosocial treatment regimen adherence and general health outcomes in the geriatric population (>65years). This is the first comprehensive literature review study exploring the effects of MI on older adults representative of typical age group seen in geriatrics clinics (i.e., >65years, with many patients well into their 70s and 80s).The goal of the review is to provide readers with a focused, up-to-date outcome research review and to discuss the feasibility of clinical applications of MI within an interdisciplinary geriatric clinical settings and its adaptation for use with older individuals dealing with both mental health and general medical conditions. To be included in this review, studies had to be randomized controlled design, examine the effects of Motivational Interviewing, and include participants with an average age of 65years or more. Though limited in number, 7 out of 9 studies reviewed showed a significant improvement in health outcomes as a result of Motivational Interviewing treatment. The two studies that showed no significant improvements included telephone-based MI counseling rather than face-to-face MI treatment. MI shows promise as an effective treatment in affecting health behavioral change for older adults, but further studies are needed to identify key necessary therapeutic features of the MI with this population.

Keywords: motivational interviewing, systematic review, medical regimen adherence, older adults, geriatrics, geriatric patients, mi, motivational interviewing treatment

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Introduction

Based on the World Health Organization report[1] the number of people aged 65 or older is projected to grow from an estimated 524million in 2010 to nearly 1.5billion in 2050, with most of the increase in developing countries. In the United States, increased percentage of the older adults is observed across various healthcare systems. The United States Census of 2010 data reported[2] predict doubling of U.S. population aged 65 and older, between years 2010 to 2050. According to the VA Office of Policy and Planning more than 46 percent of veterans were projected to be 65years old or older by 2015. Further, based on the Survey of Enrollees' Health and Reliance Upon VA[3] those aged 65years or older constitute 3,135,490 VHA enrollees or 42.7% of total VISN enrollees. With an increasing number of veterans who are 65years old or older, as well as increases around the world, there is a greater need to understand if non-pharmacologic treatment such as Motivational Interviewing, that has been extensively proven as effective in medical care setting and researched among general public with estimated 5,931 articles published on MI in medical care setting (e.g., Lundahl et al.,[4]) Although MI has been researched extensively in general public due to its relatively quick effects (often 5 sessions may produce significant results in health behavior outcomes) and associated cost-effectiveness, it has been scarcely researched as a potential treatment or an adjunctive therapy with geriatric population (>65years). While some studies have looked at MI's effects in treating "older populations" and even medication adherence (e.g., Depp et al.,[5]) those studies varied in their definition of who "older" population is, with mean ages of participants ranging from 50 to 60years. The only review published in recent years that focused specifically on effects of Motivational Interviewing on behavioral change in older adults[6] included studies with the mean age of the sample to exceed 50years in the review. While these studies are generally useful they are not entirely representative of typical age group seen in geriatrics clinics (i.e., >65years, with many patients well into their 70s and 80s).

This study was able to perform a review of literature and include 9 studies which met the inclusion criteria: the mean age of participant sample to be minimum of 65years and that the study be randomized and controlled. The main purpose of this article is to assess the extant research literature on the efficacy of MI for promoting behavioral health changes among older adults over 65years old, who are the most likely to visit geriatrics clinics.

Methodology

To examine the effect of Motivational Interviewing (MI) on functional changes and medical/biopsychosocial treatment regiment adherence among older adults, a comprehensive review of the literature was conducted in July 2013. Research reports were identified from the following databases: PubMed, MedLine, PsychINFO, Social Work Abstracts, Sociological Abstracts, Social Service Abstracts, CINAHL, Health Source: Nursing/Academic Edition. Further, the term "older adults" was used to search the Motivational Interviewing Network of Trainers (MINT, 2014), an MI-related bibliography database. The MINT search yielded a total of 11 articles with publications from 2009 to 2011. Other search terms were "Motivational Interviewing," "MI," "older adults," "adherence," and "geriatrics." Only articles meeting the following criteria were included in this systemic review: the average age of the participants must be equal to or exceed 65years, and the research design must be a randomized controlled study. A total of 9 studies investigating the effect of MI among older adults (> 65years) were identified as meeting the inclusion criteria and were included in this systemic review.

Results

Of the 9 studies reviewed in this article only 2 studies reported no statistically significant difference (Table 1). Indeed, the two studies which did not find significant effects of the MI on outcomes both shared similar characteristics: low frequency of follow up MI

sessions and phone call delivery of MI interventions. For example, Sims et al.,[15] reported delivering only initial MI session as a face-to-face session, with remaining two follow up sessions being delivered by primary care nurse over the phone. Similarly, Solomon et al.,[16] found no significant effects on medication adherence for osteoporosis patients using a telephonic motivational interviewing intervention which included 10 calls over the course of 12months.

Unlike the two studies that yielded no significant effects, the other 7 studies (Table 1) demonstrated that participants receiving MI interventions obtained significantly higher scores on outcome measures compared to those who received treatment as usual (TAU). In addition to more face-to-face delivery of MI interventions, these studies also listed higher dosage of treatment and reported 8weekly home-based MI sessions (e.g., Brodie & Brodie et al.,[7,8])

Table 1 Studies investigating the effect of MI among older adults (> 65years)

Author(s)	Methodology	Population	Targeted behavior	Final N	Treatment	Frequency/Duration	Group Outcomes
Brodie et al., [7]	Randomized; Controlled	Older Chronic Heart Failure (CHF) patients, 65 years or over; Mean age: TAU Group (76 years); MI-only Group (78 years) MI + TAU Group (79 years)	Physical Activity; Quality of Life (QoL)	60	3 Groups: TAU only; MI only; or MI and TAU from Heart Failure Delivery Nurse (HFSpN) and/or Researcher	TAU only: HFSpN advised patients to participate in structured exercise program – including provision of information on locations accessible locally to such opportunities; MI only: 8 weekly home-based sessions delivered by researcher who had no clinical qualifications, but highly experienced in motivational interviewing; Both MI and TAU: Combination of above	Quality of Life: Results at five months showed that participants in all 3 groups improved across all nine dimensions, except for TAU-only group, which decreased in general health perception dimension. Significant differences between TAU-only and MI-only and between TAU-only and MI and TAU-combined groups were observed. Overall data support the application of MI to exercise behavior. While TAU and MI were both effective, type of therapeutic approach should be matched with patients as each approach may be more effective than the other with specific population.
Brodie et al., [8]	Randomized; Controlled	Older CHF patients, 65years or over; Mean age: 79 years (SD 6.9)	Physical Activity	60	3 Groups: TAU only; MI only; or MI and TAU by Heart Failure Delivery Nurse (HFSpN) and/or Researcher	Both TAU and MI: advisement from HFSpN to participate in structured exercise program (TAU) and MI from the researcher on how to increase energy expenditure by integration of physical activities into daily lives; TAU only: 8 sessions, 1 hr./ session from HFSpN; MI only: 8 sessions, 1 hr./ session from researcher;	After 5 months 2 groups: Both TAU and MI; MI only showed significant increase in energy expenditure TAU energy expenditure decreased. All groups significant increase in walking distance.
Paradis et al.,[9]	Randomized; Controlled	Heart Failure (HF) Patients, MI group Mean age was 74 years, Control Group, mean was 67 years	Self-Care	30	2 Groups: 15 /group, TAU only, and MI +TAU	Treatment Group (MI): 1 face-to-face session and 2 sessions over the telephone. Control Group continued with regular visits to the clinic.	Patients in the MI group obtained significantly higher scores than the Control Group patients on the confidence to perform self-care behaviors specific to HF (p=.005). No other significant differences were observed.

Table Continued...

Author(s)	Methodology	Population	Targeted behavior	Final N	Treatment	Frequency/Duration	Group Outcomes
Bowen et al.,[10,11]	Randomized, Controlled	Women's Health Initiative dietary interventions; Mean age was 65	Reducing Dietary fat consumption	164	Added Intervention package using MI	MI group: 3 individual MI sessions with a dietitian in addition to the regular group sessions.	Added intervention package using MI, delivered through 3 contacts with dieticians, is an efficacious method reducing dietary fat consumption in participants in ongoing intervention.
Kramish Campbell, et al.,[12]	Randomized, Controlled	Both survivors of colorectal cancer (CRC) and non-CRC affected participants. Average age was 66 years	Promotion of Fruits and Vegetable consumption for Cancer Prevention and Control	735	Two different methods of communicating and promoting health behavior change were tested: tailored print communication (TPC) and brief telephone-based motivational interviewing (TMI). The combined (TPC + MI) intervention group. Control group.	TCP: expert feedback driven by baseline data. TCP distributed tailored information in form of newsletters. MI calls encouraged participants to overcome ambivalence and identify. Four brief (20-minute) motivational interviewing calls delivered over a nine month period. Control group received two mail generic (non-tailored)	The combined intervention (TPC + MI) showed statistically significant effect in the N-CRC subgroup, increasing of 1.0 servings of F&V. Compared to control group statistically significant increases were observed in all 3 intervention groups among the CRC survivor subgroup. The combined intervention (TCP +TMI) was the most effective and most costly.
Gordon et al.,[13]	Randomized, controlled	Younger adults were compared to older adults (65+ years)	Alcohol Consumption	301	MI with bachelor level interventionist at PCP's Office	Initial session of 45-60 minutes in duration and two additional 10-15 minute contacts.	No statistically significant differences between the younger and older groups. This may be suggestive that MI may be generalizable across different ages.
Kolt et al.,[14]	Randomized, Controlled	MI group: participant average age was 74.1 (SD 6.2); control group was 74.3 (SD 5.9)	Physical Activity	186	MI Phone Calls with exercise counselor. Control group did not receive intervention.	Total of 8 phone calls, each lasting 10-16.5 minutes, were placed over 3 months.	MI group showed significant physical activity increase (p =0.007) and a statistically significant improvement in levels of physical functioning (p =.04) compared to control group.
Sims et al.,[15]	Randomized, controlled	Older adults of 65+ years and older	Physical Activity	20	Initial MI session and follow up phone calls with PCP.	Initial MI session face-to – face and follow-up with primary care nurse (2nd and 6th weeks follow-up calls).	NO statistically significant difference.
Solomon et al.,[16]	Randomized, Controlled	Mean age 78 years	Medication Adherence/ Osteoporosis	2087	One-on-one Telephone Based MI intervention Compared to Mailed Educational Material (Control)	Over 12-months counselors would place 10 calls to Treatment Group	No statistically significant improvement in adherence to an osteoporosis medication regimen using a telephonic motivational interviewing intervention

Conclusion

To be effective, MI must be provided in a flexible and adjustable manner. Further, as review of extant literature in this article suggest, higher frequency of face-to-face MI interventions, along with overall higher frequency of follow-up sessions is more likely to yield desired therapeutic outcomes. Clinicians need to acknowledge specific needs of the individuals as well as populations they are treating and to fit these needs into development and delivery of MI intervention.[17,18]

In summary, this article provided a review of extant literature on Motivational Interviewing (MI) and its effect on medical/

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biopsychosocial treatment regimen adherence and general health outcomes in the geriatric population (>65years), and as such is the first comprehensive literature review study exploring the effects of MI on older adults representative of typical age group seen in geriatrics clinics (i.e., >65years, with many patients well into their 70s and 80s). However, given relatively small sample size of studies reviewed it is suggested that further studies on this topic be conducted to better understand and evaluate usefulness of MI based interventions with the geriatric populations.

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Conflicts of interest

Author declares there are no conflicts of interest.

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References

1. World Health Organization, National Institute on Aging, National Institute on Health. Global health and aging? NIH Publication. 2011. p.11–7737.
2. U.S. Census Bureau. 2010 Census Summary File 1; U.S. Census Bureau, Table 4: Projections of the population by sex, race, and Hispanic origin for the United States. 2011; 2010–2050 (NP2008–t4).
3. Survey of Enrollees' Health and Reliance Upon VA With Selected Comparison to the1999-2010 Surveys. 2012.
4. Lundahl BW, Kunz C, Brownell C,et al. A meta-analysis of motivational interviewing: Twenty-five years of empirical studies. *Research on Social Work Practice.* 2010;20(2):137–160.
5. Depp CA, Jeste DV. Definitions and predictors of successful aging: a comprehensive review of larger quantitative studies. *Am J Geriatr Psychiatry.* 2006;14(1):6–20.
6. Cummings SM, Cooper RL, Cassie KM. Motivational interviewing to affect behavior change in older adults. *Research in Social Work.* 2009;19(2):195–204.
7. Brodie DA, Inoue A, Shaw DG. Motivational interviewing to change quality of life for people with chronic heart failure: A randomized controlled trial. *Int J Nurs Stud.* 2008;45(4):489–500.
8. Brodie DA, Inoue A. Motivational interviewing to promote physical activity or people with chronic heart failure. *J Adv Nurs.* 2005;50(5):518–527.
9. Paradis V, Cossette S, Frasure-Smith N, et al. The efficacy of a motivational nursing intervention based on the stages of change on self-care in heart failure patients. *J Cardiovasc Nurs.* 2010;25(2):130–141.
10. Bowen D, Ehret C, Pedersen M, et al. Results of an adjunct dietary intervention program in the women's health initiative. *J Am Diet Assoc.* 2002;102(11):1631–1637.
11. Bowen D, Ehret C, Pedersen M, et al. Results of an adjunct dietary intervention program in the women's health initiative. *J Am Diet Assoc.* 2002;102(11):1631–1637.
12. Campbell MK, Carr C, Devellis B, et al. A Randomized Trial of Tailoring and Motivational Interviewing to Promote Fruit and Vegetable Consumption for Cancer Prevention and Control. *Ann Behav Med.* 2009;38(2):71–85.
13. Gordon AJ, Conigliaro J, Maisto SA, et al. Comparison of Consumption Effects of Brief Interventions for Hazardous Drinking Elderly. *Subst Use Misuse.* 2003;38(8):1017–1035.
14. Kolt GS, Schofield GM, Kerse N, et al. Effect of telephone counseling on physical activity for low-active older people in primary care: a randomized, controlled trial. *J Am Geriatr Soc.* 2007;55(7):986–992.
15. Sims J, Smith F, Duffy A, et al. Can practice nurses increase physical activity in the over 65s? Methodological considerations. *Br J Gen Pract.* 1998;48(430):1249–1250.
16. Solomon DH, Iversen MD, Avorn J, et al. Osteoporosis Telephonic Intervention to Improve Medication Adherence (OPTIMA): A Large Pragmatic Randomized Controlled Trial. *Arch Intern Med.* 2012;172(6):477–483.
17. Department of Veterans Affairs, Veteran Population Projections; Office of the Assistant Deputy Under Secretary for Health for Policy and Planning, Fiscal 2011 Year end.
18. Enrollment file linked with VHA Vital Status data (including data from VA, Medicare, and SSA).