

Effectiveness of motivational interviewing (mi)



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An Intervention to increase the participation levels of Physical Activity in older adults who have been diagnosed with Osteoporosis

Background

Physical activity is widely accepted to have increasing health benefits to individuals. The fourth biggest risk factor for global mortality has been found to be physical inactivity; the World Health Organisation estimated around 6% of global deaths were caused by this ⁽¹⁾. Despite this evidence, in 2008 only 20% of 64-75 years old and 9% of those over 75 met the recommended weekly physical guidelines ⁽²⁾. The under achievement of those meeting the governments' health guidelines is not just restricted to the older adult population; on average only 29% of woman and 39% of men reach the recommended guidelines within England ⁽³⁾.

Osteoporosis is a condition where the bones from a loss of tissue become brittle and fragile causing an increased chance of a break from a minor bump or fall. As we age the density of bone decreases so osteoporosis becomes more common, also, due to poor balance and coordination, falling incidents become more frequent, leading to an increased number of broken bones ⁽⁴⁾. With osteoporosis caused fractures costing the NHS an estimated cost of £1.8 billion a year ⁽⁵⁾, and exercise not only having a benefit on preventing loss of bone density but also reduces the risk of falling and improving cognitive function among the elderly ⁽⁶⁾, suggesting that physical activity is not only important in preventing but managing the risks of osteoporosis.

Literature review

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Self-determination theory (SDT) is based upon motivation and personality in social situations that differentiates motivation in terms of being controlled and autonomous ⁽⁷⁾. SDT is a macro-theory with many sub-theories, including the Basic Psychological Needs Theory (BPNT), there are three basic psychological needs (BPN); autonomy, competence and relatedness, which according to SDT predict that fluctuations in well-being are directly influenced by fluctuations in need satisfaction ⁽⁸⁾. SDT shows that satisfaction of BPN will increase motivation and decrease a-motivation leading to an increase in effort, persistence, performance as well as well-being.

Meta-analysis of 184 independent sets of data testing SDT within health care shows a growing number of researchers are using SDT to promote uptake and maintenance of a healthy lifestyle. In most of the data sets analysed an increased level of BPN was correctly predicted ⁽⁹⁾. It is also shown from SDT that BPN and self-regulation were negatively related to indicators of negative mental health ($p = -0.05$ to -0.50) and positively related to indicators of positive mental health ($p = 0.22$ to 0.62 , where p is the population effect size) ⁽⁹⁾.

Motivational interviewing (MI) is defined as a “client-centred, directive method for enhancing intrinsic motivation to change by exploring and resolving ambivalence” ⁽¹²⁾. MI; a counselling style that uses an empathic, non-confrontational style of counselling with powerful behavioural strategies, which convinces them they ought to change, known as change-talk ⁽¹⁴⁾.

Seventy-two randomised control trials (RCT) evaluating the effectiveness of MI in different areas of disease were used for a meta-analysis, this showed a significant effect on three out of four studies with an effect on both physiological (72%) and psychological (75%) diseases ⁽¹⁵⁾ . A review of MI against traditional advice shows it outperforms it in 80% of studies. However, large-scale studies on how to implement MI need to be undertaken as evaluation of MI in exact interviewing settings is minimal ⁽¹⁵⁾ .

One criticism against MI has been its lack of a coherent theoretical framework for understanding its efficacy and processes; it's been proposed that SDT can provide this needed framework for understanding how change occurs during MI. Both SDT and MI are based upon the assumption we as humans have an innate tendency for personal growth and that MI provides the social-environmental factors suggested by SDT to promote this ⁽¹¹⁾ .

Aim

The aim of this intervention is to assess the effectiveness of MI via SDT on increasing the levels of physical activity of elderly adults whom suffer from osteoporosis through satisfaction of BPN.

Design

For this intervention a RCT will be used allowing a cause and effect relationship; between motivational interviewing and the physical activity undertaken to be established. This study design will use two groups; an intervention group which will receive MI and a control group whom don't receive MI, this allows comparisons between these groups at the end of the <https://assignbuster.com/effectiveness-of-motivational-interviewing-mi/>

trial to establish this relationship, to minimise allocation bias we will be using a method in which participants are allocated to either group randomly. This also allows us to reduce the effect of other confounding factors have on the results of this intervention.

Sample

To be considered for this trial a participant must meet the following criteria. They must be over 65 years old and classified as inactive; participating in less than 150 minutes of moderate exercise per week; must be diagnosed with osteoporosis. However, the participants must be within the contemplation stage (have willingness to change their behaviour) of the transtheoretical model of behaviour change ⁽¹⁰⁾, and have passed a medical examination by their general practitioner (GP) allowing them to participate. Participants will be recruited through their GPs with a letter at their regular check-up appointment asking if they'd participate, and flyers will be given out in doctors' surgeries.

Intervention

MI has become widely adopted as a counselling style for promoting behaviour change ⁽¹¹⁾. It's suggested that there are four general principles which underpin the MI technique; expression of empathy, development of discrepancy, rolling with resistance and support for self-efficacy ⁽¹²⁾. When using MI the practitioner should endorse the following five strategies; ask open-ended questions, listen reflectively, summarize, affirm and uses elicit self-motivational statements for the best possible outcome ⁽¹³⁾. The

practitioner must be able to produce an environment which encourages the BPN, which in turn should increase their motivation to increase physical activity. For this to occur the practitioner must help the client develop appropriate goals and provide positive feedback to encourage competence; explore options, encourage change talk and let the client make decisions about how and what to change to increase autonomy; and express empathy, avoid judgement/blame and demonstrate understanding of clients position to endorse relatedness ⁽¹¹⁾ .

This study will consist of a control group whom do not receive MI and an intervention group whom receive MI on a monthly occurrence, both groups will receive flyers from their GP. To decrease attrition bias participants will be given the choice to undertake these sessions through a phone call or at the local health care centre at a time which suits them. Both groups will be asked to take part in this study over a period of 12 months with an additional 12 months follow-up period.

Assessment

Before the study is undertaken a basic questionnaire must be completed by all participants. This includes socioeconomic questions such as age, sex and current physical activity levels. Throughout the study there will be three measures to assess the effectiveness of MI on the lifestyle of participants. A basic questionnaire similar to the one used at baseline will be used at four month intervals over the 12 months of intervention and the 12 month follow-up period. Randomised observations will be used over four six month periods, two during the trial, 0-6 and 6-12 months and two during the follow-

up 12-18 and 18-14 months; these will be used to validate the information received on physical activity levels from the questionnaires. The final measure will be through a quality of life (QoL) questionnaire which will be given at the same time as the basic questionnaire, this is to assess if those whom feel an increase in QoL feel more motivated and have an increased satisfaction of their BPN. Each group will receive the same measures with the questionnaires being received through the post and with a freepost envelope for returning for analysis and interpretation, this allows us to have a comparison between both groups and after interpretation conclude with a relationship between MI and physical activity levels.

Limitations

Within the study there will always be the likelihood of bias occurring however to try and minimise this a random allocation technique has been used to reduce allocation bias, and the use of a large sample to reduce sampling bias. However recruitment of a large amount of people over this time period will be difficult and attribution bias may occur with drop outs, reducing validity of results. During the measurements of physical activity both reporting and recall bias may occur, due to lack of being able to recall loads of information or for social desirability may alter their questionnaire responses.

Costing with both time and money may be an issue within this study. This study uses three types of measurements, the questionnaires taking time to analyse causing a strain on time whilst observations will need to not only be undertaken by a trained professional but are also costly to implement. It will

also cause a time restraint on participants due to the time needed not only to participate in exercise but to complete questionnaires and receive MI; this has been taken into account in this study by allowing the participant to receive MI at a time more suited to them.

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