

Lions and Music Therapy for Seniors Program

Synopsis:

There is credible neurological research supporting the effect of music on the brain by stimulating its capacity to 'reconnect'. This is shown to reduce cognitive decline and may have other positive effects on reduced brain function. A strong supportive value to many, including seniors who may be experiencing effects of cognitive decline, in some cases without even being aware of it.

Through creation of a program based on supplying the information, process and music styles, this is an opportunity to positively expand the awareness of Lions in the community in a very cost effective manner. Presenting a potentially critical community social support process addresses the concept of 'We Serve' at a community level and demonstrates real service.

It departs from the 'gaming funds' dependence that appears to be increasing in Lions clubs.

Partnering with local businesses in the initiative assists in furthering community awareness of Lions and their support efforts. *It may also prove advantageous in developing new members including seniors themselves.*

Note that the supplying of music to enhance brain health lends itself to many other areas outside of seniors health. Various areas of rehabilitation, development and even stress reduction exist (eg: Introduce music in treatment rooms where patients are limited in activity or movement until conclusion of the treatment) that may benefit from selected music programs.

Background – Issue at stake

Perceived or actual cognitive (executive function) decline has led to perceptions of ageism with accompanying social discrimination in many societies.

Global society, in particular North America, is experiencing a per capita increase in an aged population. Demographics in certain areas place the 'seniors' population, (defined as 65+) as the fastest growing segment.

Varying factors influence cognitive function in an aging population. Forms of cortical atrophy (loss of brain size) start to occur post 35 years of age. While this does not by itself equate with cognitive decline by late senior years (75+) it can be a very relevant factor.

Some loss of brain size and even cognitive decline does not disqualify a person from leading a fully functional life. Lifestyle, nutrition and other medical advances significantly extending life spans are factors whose influence in lifestyle and function in seniors, in particular later years, is being felt. Significantly, even when these factors have been allowed for, there are numerous neurological studies that point to notable cognitive decline in a majority of seniors over 80.

The cerebral cortex, the wrinkled outer layer of the brain, gets thinner as you age. It's especially noticeable in the frontal lobe which processes memory, emotions, impulse control, problem-solving, social interaction, and motor function. Thinning can also be noticeable in parts of the temporal lobe, which is located behind the ears and helps people understand words, speak, read, write, and connect words with their meanings. Sourced.

While research is continuing and mitigating techniques are being put into play, there is an underlying theme which seems to be most appropriate in supporting senior's mental health.

- 1) Some degree of physical exercise coupled with optimal sleep periods and,
- 2) Stimulation of the brain in a matter that engages as many areas of the brain as possible.

Research into the brain itself in neurological studies has been delving deeply into the effects of stimulation of the brain. Technology has been invaluable in supporting research into two very relevant factors in brain operations;

A) The brain is primarily composed of 'grey' matter and 'white' matter. As a generalization, the grey matter can be thought of as the information storage component and the white matter can be viewed as the connections component. The brain has various areas where specific functions are controlled from.

A loose analogy may look at grey matter as the 'hard drive' and white matter as the processing portion. Staying with this analogy, even if there is some loss in hard drive, the processing unit is critical to the locating and handling of data. Increasing processing speed has been the golden dream of computer operations and ever faster processors have allowed for tremendous advances in technology.

B) The brain is not 'fixed' as in it can develop or repair itself to a degree.

Studies have long indicated the value of restful and undisturbed sleep. Current theory is that this is when, during specific cycles, the brain does its 'maintenance work'. Sleep deprivation studies indicate the extremely serious, (potentially fatal), results of denying the brain this maintenance time. Exercise has long been linked to general physical health which also supports brain function.

Expanding on both points A and B, research strongly indicates that cognitive decline may, in many cases, be linked to loss or damage of neural connections in the brain. The result may be the inability to fully utilize connections or recover from lost connections.

Studies are showing, (some in real time during scans), the brain can create neural connections. Creating, (or re-creating), connections can enhance the brains functions and reduce some of the effects perceived as cognitive decline. This may be partially due to the brains enhancing its ability to 'process' information in a reduced time space in addition to creating more useable connections.

One of the methods demonstrated to enhance these connections is listening to music. When listening to music we engage multiple areas of our brain and induce them to interact with each other. This causes new connections and strengthens existing ones. Over time this results in increasing our "processing speed" and reducing the effects of less cognitive function.

Studies have indicated that the more complex the music, the more brain areas are activated therefore the more benefit is received. This lends itself to classical and orchestral/symphonic music.

Ideally it appears that moderate exercise while listening to symphonic or 'big band' music may deliver substantial benefits. It should be noted that benefits are shown even without exercise.

Enter Lions Clubs International:

This is a significant opportunity for Lions to fulfill their motto: We Serve.

There are many independent living seniors' residences and 'adult living' complexes where, although activities are encouraged, many seniors are not engaging in sufficient stimulation to reduce potential cognitive decline. There are various reasons for this lack of 'buy in'.

Many seniors are still very capable individuals and have the potential to continue to live fulfilling lives and contribute to the community. It may not be incorrect to state that, in particular with single seniors, there may be less than optimal circumstances present to ward off reduction in brain stimulation. *It is questionable how much 'stimulation' is found watching TV...*

There are a further number of seniors living independently, (aging in place), who may benefit from awareness of such a concept.

Lions Clubs have an opportunity to create a program where seniors, in particular those who are experiencing cognitive decline, can enhance their quality of life and relationship to society through a simple, low cost and very low stress technique. Note that many seniors may not even be aware of the decline or may simply call it 'old age'.

How would this be done?

Club Initiative Example:

Lions Music for Seniors Health Program

The District can develop an 'infosession' designed to supply a backdrop information package. There can then be a rollout through the District(s) where the concept and packages are presented and made available to clubs. Through contact with seniors residences the 'infosession' can be presented with a view to supporting the program.

Example: A club may donate a sound system in a common area and set up music appreciation sessions where residents can listen. This may be facilitated by a wifi operation. What music is listened to can be varied and selected by the residents noting that the more complex – the greater the benefit. *Lions themselves may benefit from the program*

Further support: Residents should also be encouraged to use their own systems (earbuds) to listen to music in particular when walking. *Note that earbuds should be of a type that does not exclude outside sounds and may also be supplied by a Lions Club.*

Clubs should be able to receive assistance from partnerships in this type of project. Financial institutions, local stores, local media, etc can be identified as sponsors in the 'Lions Music for Seniors Health' program. The District may be able to arrange a corporate and/or health authority support level.

There may be a desire and benefit to retaining the Lions branding if partnering with other NGO's.

Conclusion

While the descriptive operation of the brain has been simplified, there is no question as to the benefits of complex music to cognitive (executive) function and situational awareness.

This program demonstrates the positive impact a Lions Club can have on a community.

It addresses a critical expanding need and provides a part of the solution while at the same time increasing the awareness of Lions in the community. It is very 'media friendly'.

It may have the added benefit of increasing contact with an underutilized resource by exposing seniors to the potential they may have in working with Lions as members or volunteers.

It is not dependent on 'gaming funds' or other non-profits that appear to be influencing some clubs operations and functions. It is well researched and documented and is new enough to not be overly exposed. Equally importantly, it can do no harm but can have only positive results.

Sources

There are various studies both past and ongoing that are researching applications of music and cognition/executive function through neural connections.

Note that I have had various conversations with medical personnel, many in the higher stress treatment areas and all have agreed that music is beneficial and that a minimum it can do no harm (except for rap.....).

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