Singing for a New World

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In communities across America, singing is bringing people together:

Hearts Need Art: Creative Support for Adults with Cancer (http://heartsneedart.org) is led by presenter and NATS member Constanza Roeder. HeartsNeedArt provides transformative healing-art activities free of charge to cancer patients, families, and hospital staff in the San Antonio area. Contact: Constanza Roeder, constanza@heartsneedart.org

In Tacoma, Washington, the Tacoma Refugee Choir (http://refugeechoir.org) is led by presenter and NATS member Erin Guinup. The choir provides those who have fled their country with a place to make music together and helps them to find support with others in similar circumstances.

The Carnegie Hall Lullaby Project (http://carnegiehall.org/Lullaby) links pregnant women and new mothers with professional artists to write personal lullabies for their babies, supporting maternal health, aiding child development, and strengthening the bond between parent and child. The project reaches mothers in hospitals, homeless shelters, and correctional facilities.

The Dallas Street Choir (http://dallasstreetchoir.org), led by Jonathan Palant, works with homeless individuals, providing practical musicianship training, an environment that promotes accountability, and a community that offers compassion and hope.

What can you do?

- Have the university, church, and community choirs you direct and the solo performers you teach program participatory songs at the ends of concerts. Invite the audience to sing along. Print the words in the program.
- Promote vocal music in schools in your community! The education of our children needs to include participation in singing.
- Take your students and choirs to public places (malls, restaurants, bus stations, airports), and spontaneously start songs flash mob style.
- Build on settings that are already in place where people gather together. Encourage sing-a-longs of popular songs of various genres at ballgames, other sporting events; at community celebrations (town 4th of July picnics, etc); in churches; at retirement centers; in hospitals; on military bases; on reservations. Focus on LEADING people in song as well as singing FOR THEM.
- Engage popular artists you know or teach to do sing-a-longs at concerts – classical, country, folk, popular
- Collaborate with local opera companies and theaters to have concerts which include singing along on popular choruses, or use curtain calls to invite the audience to sing

- Begin community meetings you are involved in with a song. You have to listen to others to have a successful meeting, right? What better way to establish that environment than through singing together?
- You can start a "Beer Choir" in your favorite pub (https://beerchoir.com/). The business owner will love the new customers, and you will love making new friends over a few songs and some suds.
- You can gather a few friends together and lead singing in a retirement center, hospital, nursing home, or veteran's group meeting, sharing music with some of our most "experienced" listeners. You will never find a more enthusiastic audience for your efforts.

Examples of research on medical and emotional benefits of singing together

Emotional related changes associated with singing together

Expert and non-expert choir singers in Stockholm reported increased joy and relaxation in rehearsals (Sandgren and Borg, 2009).

Interviews with older adults who sing in a choir most commonly report feelings of joy and togetherness (Clift and Hancox, 2001, 2010).

Singing together in a choir rehearsal, as compared to having conversations in pairs, increased positive feelings and reduced negative feelings. No such change was seen in the speaking situation (Kreutz, 2014).

Parkinson (2016) studied the motivations and benefits amateur singers perceive regarding participating in community singing. Benefits included: social connectedness, personal development, mood enhancement, emotional resilience, aesthetic benefits, and health benefits. Men and women differ markedly in their motivations for participating.

Singing related changes in body chemistry that may lead to changes in interpersonal behavior

Deep, slow activation of diaphragmatic breathing involves the vagus nerve, triggering the parasympathetic nervous system, which when active is associated with relaxation and calmness (Clift and Hancox, 2001; Clift et al., 2010).

Variations in saliva concentrations of oxytocin were studied in a group of choir singers, before and after a choir rehearsal and before and after paired conversations. Oxytocin levels were significantly higher after choral singing than they were after the conversations (Kreutz et al., 2014). Oxytocin has been assumed to have a role in group cohesion and child/parent bonding (Feldman et al, 2011).

When compared to baseline readings, salivary levels of cortisol (a key stress related hormone) were reduced by both choir and solo singing (Schladt et al, 2017)

Changes in body chemistry which may lead to health benefits

Comparing before and after a choir rehearsal, concentrations of plasma immunoglobulin A increased significantly in choir singers, while no such effect was observed after listening to the same music. Immunoglobulin A contributes to the immune system's defense against infections (Kreutz et al., 2004).

Symptoms of irritable bowel syndrome (IBS) were studied in patients in weekly choir singing versus weekly lectures and discussions. Mean free testosterone levels (an indicator of regenerative activity in the body) in saliva showed a 60 % increase in the first 6 months of the choir singing group, while no such effect was observed in the lecture/discussion group. Blood levels of fibrinogen (associated with inflammatory immune responses and increased risk of cardiovascular disease) decreased in the choir group while increasing in the lecture/talk group. Motilin, a hormone regulating bowel movements, showed a slight decrease in the choir group and an increase in the talk group (Grape, et al, 2008, 2010).

A small randomized trial assessed the impact of singing groups on lung function and quality of life in COPD patients (Bonilha et al, 2008). Subjects were either in a singing group or took a handicraft class. The singing group had a small improvement in maximal expiratory pressure while the control group had a larger decline, with the difference between the two being statistically significant.

A study by Morrison et al. (2013) looked at COPD patients in singing groups which met for 30 sessions over 10 months. Statistically significant increases in respiratory function as compared to baseline were found in forced expiratory volume in one second (FEV1), forced vital capacity (FVC), and FVC expected value percentage (FVC%). Scores in the St. George's Respiratory Questionnaire also declined (lower scores indicate self-perception of improvement) by a significant amount.

In a group of adults affected by cancer, group singing has been associated with increases in particular cytokines and reduction in inflammation, suggesting a correlation between improved immune response and singing (Fancourt at al, 2016).

Cohen et al (2007) performed a number of studies with 166 subjects, mean age 80 years, participating in singing workshops. In comparison with a control group, the singers reported fewer health problems, fewer falls, fewer doctor visits, and less usage of medications.

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