

# Managing your soundscapes for better mental health

Part of the Managing Your Soundscapes series provided by Akoio



## Managing Your Soundscapes for Better Mental Health

ental health affects all aspects of our lives, including our thoughts, actions, emotions, and overall well-being. As a result, we exercise more, get better sleep, and seek counseling and therapy to <u>improve our mental health</u>. However, we often overlook how we are affected by our personal soundscapes — the sound environments in which we live, work, and most importantly, relax.

Research shows our soundscapes can directly impact our mental — and even physical — health. Sound and noise around us can have both <u>positive</u> and <u>negative</u> <u>effects</u>. The more we encourage positive sounds and reduce negative noise in our personal soundscapes, the better we feel and the more clearly we think. If we understand how sound affects our brains and our bodies, then we can use sound to actually improve our overall health and physical and mental well-being.

### Natural Response to Sounds

Our brains are constantly processing the sounds in our environment. Our physical and mental response to sound depends on several factors, including predictability, meaning, loudness, and the complexity of the sounds we hear. Different sounds can evoke various states and emotions, such as stress and discomfort (e.g., nails on a chalkboard), excitement (e.g., upbeat music), or calmness (e.g., nature sounds).



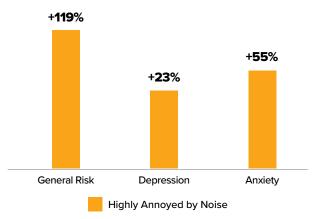
#### **Negative Sounds, or Noise**

Intense or loud sounds might put us into <u>"fight or flight"</u> mode, activating the cerebral cortex, stirring our emotions, and preparing our body to take action. When we hear sounds that could indicate danger, our amygdala (in our brainstem) <u>releases</u> <u>cortisol</u>, the stress hormone, and puts our mind and body on high alert. So, the regular presence of noise, or even unwanted sounds, can be a stressor that overloads the central nervous system and causes heightened levels of anxiety.

Environmental noise can cause high levels of anxiety, frustration, anger, and even irritability. It can also impact our <u>ability to</u> relax or remain calm. Recent research found that people who were highly annoyed by the presence of unwanted noise were 23% more likely to experience symptoms of depression. Other results showed people were at a 55% higher risk of experiencing anxiety and 119% higher risk for general mental health problems.

#### Noise and Increased Mental Health Risk

Those highly annoyed by noise are at greater risk for mental health issues like depression and anxiety.



Source: Gong X, Fenech B, Blackmore C, Chen Y, Rodgers G, Gulliver J, Hansell AL. Association between Noise Annoyance and Mental Health Outcomes: A Systematic Review and Meta-Analysis. Int J Environ Res Public Health. 2022 Feb 25;19(5):2696. doi: 10.3390/ijerph19052696. PMID: 35270388; PMCID: PMC8910193. Unwanted sounds can also disturb our sleep. Adequate, quality sleep is critical for our mental and physical health. Noise can make it difficult to fall asleep and/or stay asleep. Over time, <u>disrupted sleep</u> negatively impacts our overall well-being because it can make us less productive, more irritable, and more prone to the symptoms of depression.

#### **Positive Sounds**

Of course, some sounds — like the sounds of nature or music — have positive effects on our mood and mental health. Exposure to pleasant, natural sounds improve mental health, stress, and cognitive performance (i.e., thinking, reasoning, and information processing). Water sounds, like rain, babbling brooks, crashing of waves, and waterfalls, often have the greatest impact on positive mental health. Birdsong can help reduce stress and annoyance. The music we enjoy can significantly increase our ability to relax or focus. Finding ways to infuse these pleasant sounds into our daily life can change our emotions, our attitude, our outlook - our everyday living.

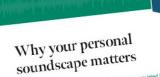
### **Our Personal Soundscapes**

We all experience unique soundscapes in different areas of our lives. For example, sounds at work differ from sounds at home. And the sounds we encounter in our varied environments impact our health differently.

#### **Managing Workplace Sound**

In a <u>survey</u> of 1,000 office workers, 44% of respondents felt that noise negatively impacted their overall well-being and 40% stated noise at work caused them to feel stressed. Problematic and irritating sounds in the workplace included the following:

- Colleagues' conversations
- Laughter



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202

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# Your personal soundscape matters.

Most people take their personal soundscapes (work, home, school) for granted. For better or worse, we simply get used to all the sounds in our environment over time. Taking time to notice the sounds around you can help you increase positive sounds and eliminate negative noise from your daily routines. Try the <u>Akoio</u> <u>Soundscape Journal</u> for 1 week, and learn how you can optimize the sound and noise around you for better productivity, energy, and most importantly, health.

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- Telephone ringtones
- Doors slamming
- Coughing and sneezing
- Music

Findings suggested that a significant proportion of people would benefit from better managing their soundscapes at work, leading to increased productivity and job satisfaction. For example, businesses could use low-level white noise generators in and around hallways to help limit "overflow" noise coming into an office or out of a conference room. (As an added benefit, they also help keep conversations more private.) Sound level meters are often required in noisy workplaces, like factories or construction sites. But installing sound level meters even in relatively quiet office environments raises awareness and helps everyone be more careful and considerate about workplace noise. Of course, ear plugs can help reduce noise. And, some earbuds come with software to cancel noise and isolate verbal communication over background noise.

#### Managing Soundscapes at Home

Similarly, taking control of our soundscapes at home, in the car, or even on vacation, can improve mental and emotional health. White noise generators are extremely useful for masking unfamiliar sounds that might otherwise disrupt sleep. Ear plugs and earbuds can protect hearing and closed circuit headsets can improve communication for outdoor activities, like cycling, hiking, or watersports. With a little attention and care, our home and recreational soundscapes can be managed to increase our relaxation, reduce our stress, and improve our overall happiness in everyday life.

## Sound Therapy, Music Therapy, and Mental Health

Professional therapists use sound and music to help patients achieve significant benefits in mental, emotional, and physical health. We can learn from their techniques how to improve our personal soundscapes, too.

#### **Sound Therapy**

In sound therapy, therapists often use tonal and/or rhythmic instruments, such as gongs, singing bowls, or tuning forks. In their sessions, they may also use natural sounds, such as the sound of moving water. The aim of sound therapy is to achieve emotional balance. Many people experience an emotional release during sound therapy sessions, with expressions ranging from laughter to crying, helping them feel more balanced as the session concludes. Researchers from the University of California San Diego studied sound therapy using Tibetan singing bowls, which produce long, sustained tones at different pitches while listeners hear and feel the vibrations. Participants experienced significant benefits, including decreases in tension, anxiety, and depression, along with increases in spiritual well-being. Another study focused on the specific effects of rhythm in sound therapy.

These researches discovered that <u>auditory</u> <u>beats</u> — synthesized "pulses" of low frequency sounds — improved both mood and the ability to think more clearly.

Occasional participation in sound therapy sessions may be helpful for those of us who experience significant stress or want greater emotional balance. But we can also use similar ideas at work and at home to help improve our personal soundscapes. For example, we might install wind chimes or occasionally use Tibetan singing bowls in our home or office. We can play audio tracks designed with natural sounds, sustained tones, and auditory beats. Such background sounds are especially effective for increasing relaxation and improving sleep.

#### **Music Therapy**

Music therapy is a specific kind of sound therapy. In addition to helping to calm and relax patients, music therapy can also help people process their emotions, particularly those associated with trauma or grief. Music therapy may involve listening to music, playing music, analyzing song lyrics, or even writing songs. According to the





American Music Therapy Association, music therapy can help participants manage stress, express feelings, improve communication, and find better overall health and wellness. It can even help with <u>depression, trauma, and</u> schizophrenia.

Music engages <u>neurochemical systems</u> in the brain, including the systems for reward, motivation, pleasure, immunity, and social connection. So, it can help us feel safer, more connected, more motivated, and even happier. Plus, <u>the way our brain responds</u> to <u>music</u> is also linked to somatic markers, physical sensations in our body. So, music literally affects our minds and our bodies and can help improve our physical and mental health.

Most of us may already listen to music as part of our daily routines. Perhaps we could listen to new kinds of music, like jazz, classical, folk, or world music, to create a new experience for our minds. Learning and <u>playing an</u> <u>instrument</u> improves our mental health, and increases our brain power. So, tinker at the piano, dust off the old guitar, or learn <u>something entirely new.</u> You won't regret it!

## Conclusion

Managing your soundscape can help you better manage your mental health and overall well-being. Start by making an inventory of your personal soundscapes and consider how the sounds in your environment impact you on a daily basis. Then, proactively manage the sounds in your environment. There are many options to consider, including noise cancellation devices, adding music and nature sounds, perhaps even professional sound and/or music therapy sessions. Experts say you'll feel better, think better, and be happier. And that sounds good.

This article was developed by Akoio staff with research and other content contributed by Dr. Keena Seward, AuD, CCC-A/SLP

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