

# Headphone Use, Emotion Regulation, Social Avoidance and Perceived Stress among Urban Young Adults

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**Abstract:** Headphones are now part of everyday urban life, yet little is known about how their use relates to the way young adults manage emotions, avoid social contact, and experience stress. This cross-sectional study examined whether headphone use is related to emotion regulation and social avoidance, and whether social avoidance is related to perceived stress. An online survey was completed by 50 urban adults aged 22 to 35 years. Participants reported their headphone use and completed the Emotion Regulation Questionnaire, the Social Avoidance and Distress Scale, and the Perceived Stress Scale. Pearson correlations showed that headphone use was not significantly related to cognitive reappraisal ( $r = -.02$ ), expressive suppression ( $r = .19$ ), or social avoidance ( $r = .05$ ). Social avoidance was positively related to perceived stress ( $r = .31$ ,  $p = .026$ ), although a rank-based check was not significant ( $\rho = .26$ ,  $p = .067$ ). The amount of headphone use appears to say little about emotional or social coping, whereas social avoidance is modestly linked to stress. Findings are tentative because of the small convenience sample and correlational design.

**Keywords:** Headphone use; Emotion regulation; Social avoidance; Perceived stress; Young adults

## 1. Introduction

City life places constant sensory and social demands on people. Classic accounts argue that metropolitan life leads individuals to protect themselves from an excess of stimulation [1], and that city dwellers cope with overload by limiting how much of their surroundings they attend to [2]. One everyday way of doing this is through personal audio. Users of personal audio devices shape their urban experience, using sound to manage their surroundings, their mood, and their contact with other people [3]. Headphones therefore serve a purpose beyond entertainment: they let people decide what they hear and create a private space within a public one.

This habit raises a practical question for psychologists, counsellors, and educators. If young adults rely heavily on headphones, is this a healthy way of managing feelings, a way of avoiding other people, or neither? The answer matters because the same behaviour could be helpful in one case and harmful in another. Despite the spread of headphone use, few quantitative studies have tested how it relates to emotional and social functioning among urban young adults, particularly in India. The present study addresses this gap.

## 2. Literature Survey

**Emotion regulation and music.** Emotion regulation refers to the processes by which people influence which emotions they have, when they have them, and how they experience and express them [4]. Research on everyday music use shows that people choose music to change or keep a mood and to cope with stress [5-7]. Two common strategies are cognitive reappraisal, which means changing how a situation is understood, and expressive suppression, which means hiding emotional expression [8]. Because headphones deliver music in a private and immersive way, heavier

headphone use might be expected to go along with greater use of such strategies.

- 1) **Social avoidance:** Social avoidance is the tendency to stay away from social situations, together with the distress felt in them [9]. In crowded public places, wearing headphones can work as a non-verbal signal that a person does not wish to be approached. This may offer relief from overstimulation, but if avoidance becomes the usual response to social demands, it may carry costs for connection and well-being.
- 2) **Perceived stress and coping:** Perceived stress is the degree to which people appraise their lives as unpredictable, uncontrollable, and overloading [10]. In the transactional view of coping, the effect of a strategy depends on whether it helps a person deal with a demand or only helps them escape it [11]. This suggests that regulating emotions might reduce stress, while avoiding people might be linked to higher stress.
- 3) **Gap:** Emotion regulation, music listening, and social avoidance have mostly been studied separately. Evidence on how headphone use itself relates to both emotional and social coping, and to stress, is limited, and little of it comes from urban young adults in India.

## 3. Problem Definition

It is unclear whether headphone use among urban young adults reflects better emotion regulation, greater social avoidance, or neither, and whether social avoidance is related to higher perceived stress. The study therefore aimed to examine how headphone use is related to emotion regulation and social avoidance, and how social avoidance is related to perceived stress. The objectives were (1) to describe how urban young adults use headphones, (2) to examine whether headphone use is related to cognitive reappraisal and expressive suppression, (3) to examine whether headphone use is related to social avoidance, and (4) to examine whether social avoidance is related to

perceived stress. The hypotheses were stated in the positive direction because the literature suggests that people who rely on private audio use it to manage their feelings and to limit contact with others, and that avoiding people goes with higher stress. Three hypotheses were tested:

- **H1:** Headphone use is positively related to emotion regulation.
- **H2:** Headphone use is positively related to social avoidance.
- **H3:** Social avoidance is positively related to perceived stress.

#### 4. Methodology / Approach

**Design and participants:** A cross-sectional, correlational online survey was used. Participants were recruited through convenience and snowball sampling and confirmed at screening that they were aged 18 to 35 years, lived in a city or large town, used headphones or earphones at least 3 days a week, had no hearing impairment affecting headphone use, and gave consent. Of 54 responses, 50 were included. The sample comprised 29 women (58.0%) and 21 men (42.0%), aged 22 to 35 years ( $M = 25.80$ ,  $SD = 1.98$ ). Most were employed (66.0%), with the rest self-employed (14.0%), not working (12.0%), or students (8.0%).

**Measures:** Headphone use was assessed with a short self-structured questionnaire on days per week and hours per day of use; weekly hours were estimated as days multiplied by the midpoint of the daily-hours band. Emotion regulation was measured with the Emotion Regulation Questionnaire (ERQ), which has 10 items rated 1 to 7 and gives reappraisal (6 items) and suppression (4 items) scores [8]. Social avoidance was measured with the Social Avoidance and Distress Scale (SADS), which has 28 true/false items scored 0 to 28 [9]. Perceived stress was measured with the 10-item Perceived Stress Scale (PSS-10), scored 0 to 40 [10]. Reliability in this sample was .87 (reappraisal), .78 (suppression), .86 (SADS, KR-20), and .66 (PSS-10).

**Data screening:** Responses were checked for eligibility and completeness before scoring. Participants who did not meet the criteria ( $n = 4$ ) had not completed the questionnaires and were not analysed. Skewness and kurtosis for reappraisal, suppression, SADS, and PSS-10 all fell between -1 and +1, and Shapiro-Wilk tests were not significant ( $p = .16$  to  $.87$ ), so these variables were treated as approximately normal. Weekly headphone hours was positively skewed and departed from normality (Shapiro-Wilk  $p < .001$ ).

**Procedure and analysis:** The survey was shared online. Participation was voluntary, participants could stop at any time without consequence, and informed consent was taken on the first page of the form. No names or email addresses were collected, responses were anonymous, and the data were used only for academic purposes and are reported as group results. Pearson correlations tested the hypotheses at the .05 level (two-tailed). Because weekly headphone hours departed from normality, Spearman's rank correlations were also calculated as a check.

#### 5. Results and Discussion

**Table 1:** Descriptive statistics ( $N = 50$ )

| Variable               | M     | SD    | Range     | Reliability |
|------------------------|-------|-------|-----------|-------------|
| Weekly headphone hours | 16.60 | 13.10 | 0.5 to 49 | n/a         |
| ERQ Reappraisal        | 4.53  | 1.44  | 1.67 to 7 | .87         |
| ERQ Suppression        | 4.04  | 1.57  | 1 to 7    | .78         |
| SADS total             | 12.66 | 6.30  | 0 to 27   | .86         |
| PSS-10 total           | 21.36 | 5.82  | 6 to 35   | .66         |

Nearly half of the participants (48.0%) used headphones every day, and most used them for 1 to 4 hours on the days they used them. Music was the most common content (78.0%), followed by calls (52.0%), videos (50.0%), podcasts (26.0%), and background or white noise (10.0%). Headphones were used most often at college or the workplace (56.0%) and while commuting (52.0%), then at home (48.0%), at the gym or while exercising (38.0%), in public places (28.0%), and while studying (10.0%). This shows that headphones are used across many parts of daily life, most of them tied to routine and work rather than to a single purpose.

**Table 2:** Correlations between the study variables ( $N = 50$ )

| Relationship                          | Pearson r | p    | Spearman rho | p    |
|---------------------------------------|-----------|------|--------------|------|
| Headphone use and reappraisal         | -.02      | .92  | -.02         | .92  |
| Headphone use and suppression         | .19       | .19  | .15          | .30  |
| Headphone use and social avoidance    | .05       | .74  | .09          | .55  |
| Social avoidance and perceived stress | .31       | .026 | .26          | .067 |

Headphone use was not significantly related to reappraisal,  $r(48) = -.02$ ,  $p = .92$ , suppression,  $r(48) = .19$ ,  $p = .19$ , or social avoidance,  $r(48) = .05$ ,  $p = .74$ , so H1 and H2 were not supported. Spearman correlations gave the same picture ( $\rho = -.02$ ,  $.15$ , and  $.09$ ). Social avoidance was significantly and positively related to perceived stress,  $r(48) = .31$ ,  $p = .026$ , so H3 was supported on the Pearson test. This association explained about 10% of the variance in stress, and its 95% confidence interval was wide (about .04 to .55). The rank-based check was not significant ( $\rho = .26$ ,  $p = .067$ ).

In terms of size, the association between social avoidance and stress was of medium size by conventional benchmarks, the link between headphone use and suppression was small, and the remaining links were close to zero. With 50 participants, only correlations of about .39 or larger could be detected reliably, so small and moderate relationships between headphone use and the other variables cannot be ruled out. The results therefore show that no sizeable link was found in this sample, not that none exists.

The absence of a link between headphone use and emotion regulation or social avoidance does not match the expectation that heavier users rely more on headphones to manage feelings or avoid people. One explanation is that time spent with headphones says little about why they are used. People wear them for calls, work, commuting, or

entertainment, and only part of this use is aimed at managing mood or contact with others [3]. The ERQ also measures general habits of regulating emotion rather than music listening itself, and because all participants were regular users, the range of headphone use was narrow, which may reduce correlations.

The positive link between social avoidance and perceived stress agrees with the view that avoidant coping tends to go with higher stress [9,11]. However, it was modest and not significant on the rank-based check, so it should be treated as tentative. The design also cannot show direction: stress may lead people to avoid others, avoidance may raise stress, or a third factor such as anxiety may affect both.

The findings can be summarised hypothesis by hypothesis. For H1, people who used headphones more did not report using reappraisal or suppression more or less than others. For H2, heavier users did not report more social avoidance. For H3, people who reported more social avoidance tended to report more stress, although the confidence interval was wide and the rank-based result did not reach significance. Taken together, how much people use headphones appears to be a poor indicator of how they manage emotions or social situations, whereas how comfortable they feel around other people shows a more visible link with how stressed they feel.

## 6. Conclusion

Among 50 urban young adults, the amount of headphone use was unrelated to emotion regulation and social avoidance, while social avoidance showed a modest and tentative positive link with perceived stress. Heavy headphone use alone should therefore not be read as a sign of better emotion regulation or of social withdrawal. For counsellors and educators, attention may be better placed on a person's level of social avoidance and stress. Asking why someone uses headphones, and whether they are using them to cope with a demanding day or to avoid people they would otherwise like to talk to, is likely to be more informative than counting the hours of use. Young adults who report high social avoidance may also benefit from support in building comfort in social situations, since this was the characteristic most closely linked to stress in this sample. These suggestions are tentative, because the study was correlational and the stress finding was not confirmed by the rank-based check, but they point to useful questions for practice and for further research with larger samples.

## 7. Future Scope

The study has limitations. The sample was small ( $N = 50$ ) and non-random, so it could reliably detect only fairly large correlations (about  $r = .39$  or more) and may not represent urban young adults generally; it was also mostly aged 25 or 26 and mostly employed. Headphone use was measured with a short, non-validated questionnaire that recorded how much people use headphones but not why. All measures were self-reported, the PSS-10 had lower reliability in this sample, and four correlations were tested without adjustment. The cross-sectional design allows no conclusions about cause and effect.

Its benefit is that it uses standardized scales on an understudied behaviour and reports the null findings openly. Future studies should use larger and more varied samples, measure the reasons for headphone use (for example calming down, blocking noise, or avoiding conversation) with a validated scale, include variables such as anxiety and loneliness, and use daily-diary or longitudinal designs that can show the order of events. Studies could also compare different cities and age groups, and include participants who use headphones less often, so that a wider range of use can be examined. Interviews or open-ended questions about why people reach for headphones in particular situations would add detail that rating scales cannot capture.

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