

# Expressive Arts Participation as a Coping Mechanism for Stress among Young Adults (18-25)

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**Abstract:** *Young adulthood involves major educational, occupational and social transitions that can raise psychological stress. Expressive arts such as music, painting, dance, embroidery, photography, and creative writing may offer opportunities for emotional expression and coping, yet little is known about young adults in India's everyday, self-initiated creative engagement. This cross-sectional survey examined expressive arts participation, perceived stress and coping in 95 young adults aged 18–25 years (54 arts participants, 41 non-participants). We measured perceived stress with the Perceived Stress Scale (PSS-10), coping with a shortened Brief COPE, and participation with a self-developed questionnaire. Perceived stress did not differ significantly between arts and non-arts participants ( $t(93) = 1.043, p = .300, d = 0.22$ ), participation frequency was not significantly correlated with stress ( $r = .041, p = .766$ ), and stress did not differ across art forms ( $F(10, 43) = 1.529, p = .162$ ). In exploratory analyses, arts participants reported more emotional support seeking ( $p = .005, d = 0.60$ ) and venting ( $p = .002, d = 0.66$ ) than non-participants. Participation alone may not explain stress outcomes, but may be linked to emotion-focused coping.*

**Keywords:** Expressive Arts, Perceived Stress, Young Adults, Mental Health, Coping

## 1. Introduction

Young adulthood, particularly between ages 18 and 25, is a developmental period of identity exploration, educational transitions, career decisions, and increasing independence [1]. These changes bring academic pressure, financial uncertainty, occupational demands, and interpersonal challenges, all of which can raise perceived stress. In Lazarus and Folkman's transactional model, stress arises when a situation exceeds one's resources, and coping refers to the cognitive and behavioural efforts used to manage it [2].

In India, about 7.5% of people live with a mental health disorder [3], yet stigma, cost and limited access to services keep many young people from seeking professional help [4]. Accessible, self-directed coping strategies are therefore of real interest. Expressive arts, including painting, music, dance, photography, embroidery, pottery and creative writing, may offer one such route to emotional expression and reflection, and Csikszentmihalyi's flow theory suggests that deep absorption in an activity can quiet worrying thoughts [5]. However, few studies have asked whether self-initiated arts participation relates to stress among young adults in India.

This study compared perceived stress between young adults who participate in expressive arts and those who do not, and examined participation frequency, differences across art forms, and links between demographic characteristics and art-form choice. We tested three hypotheses:

**H1a:** Arts participants will report significantly lower perceived stress than non-participants.

**H1b:** Frequency of participation will be negatively correlated with perceived stress.

**H1c:** Perceived stress will differ significantly across art forms.

We also asked two research questions: whether gender and occupational status are associated with the choice of art form (RQ4), and, exploratorily, whether arts participants differ from non-participants in coping strategies (RQ5).

## 2. Literature Survey

Evidence for the benefits of the arts is substantial. Stuckey and Nobel's review linked arts engagement with a range of health benefits [6]. Koch and colleagues' systematic review of 37 studies on creative arts interventions found that most reported significant reductions in stress [7]. A scoping review by Vaartio-Rajalin and colleagues found that active art making was associated with lower anxiety and better emotional well-being [8], and Li and Peng reported that an expressive arts programme improved resilience among university students during the COVID-19 pandemic [9]. In India, Upadhyay and Pal likewise described benefits for stress, self-expression, and resilience [10].

However, most of this evidence comes from structured interventions led by trained therapists, and Upadhyay and Pal themselves called for research on non-clinical, everyday arts participation [10]. Many studies also examine a single art form, and empirical research on young adults in India remains limited. This study addresses that gap by examining several art forms in a non-clinical sample.

## 3. Problem Definition

Young adults experience stress arising from academic expectations, career uncertainty, financial responsibilities, and changing social roles. Although expressive arts are commonly used for recreation and creativity, their relationship with perceived stress among young adults in

India requires further empirical examination. The objectives were to:

- 1) Identify the expressive arts activities most commonly reported by young adults.
- 2) Compare perceived stress between participants who engage in expressive arts and those who do not.
- 3) Examine the relationship between the frequency of expressive arts participation and perceived stress.
- 4) Compare perceived stress across art forms.
- 5) Investigate whether gender and occupational status are associated with the choice of expressive arts.
- 6) Compare coping strategies between arts participants and non-participants.

## 4. Methodology

### 4.1 Design and Participants

This was a quantitative, cross-sectional online survey, so that it could show associations but not causation. Participants were young adults aged 18 to 25 years who were enrolled at a university or employed in India, could complete the instruments in English, and gave informed consent. People currently receiving formal art therapy or structured psychological therapy, or with a diagnosed severe or acute psychological problem, were excluded. The study used purposive sampling, supplemented by snowball sampling to reach working professionals across regions.

Ninety-five participants completed the survey. Those who answered yes to a question about taking part in any creative or artistic activity in daily life formed the arts group ( $n = 54$ , 56.8%), and the rest formed the non-arts group ( $n = 41$ , 43.2%). The sample included 67 women (70.5%) and 28 men (29.5%). Participants self-reported occupational status from seven options: full-time student, working professional, both studying and working, homemaker, freelancer or self-employed, between jobs or on a break, and other.

### 4.2 Research Instruments

The Perceived Stress Scale (PSS-10) [11] has 10 items rated 0 to 4 (total 0 to 40; higher scores mean more stress), with items 4, 5, 7, and 8 reverse-scored (Cronbach's  $\alpha = .74$ ). The first author developed the Expressive Arts Participation Questionnaire, which recorded art form, frequency, session duration, length of involvement, motivation, and perceived helpfulness for stress. The supervising faculty member reviewed it for face and content validity. Coping was measured with a 12-item version of the Brief COPE [12] with six two-item subscales (self-distraction, emotional support, positive reframing, venting, acceptance, spirituality), rated from 1 (I have not been doing this at all) to 4 (I have been doing this a lot); subscale scores are item means (overall  $\alpha = .88$ ).

### 4.3 Procedure and Data Analysis

We distributed the online survey through university networks, social media, and professional networks over approximately six weeks. Participation was voluntary, and participants provided informed consent before completing the questionnaire. We organised and analysed responses using

IBM SPSS Statistics. The Shapiro-Wilk test assessed normality of PSS-10 scores, and Cohen's  $d$  and a 95% confidence interval were calculated for the t-test. A Mann-Whitney U test was used as a robustness check for the group comparison."

Descriptive statistics summarised the sample and perceived stress scores. An independent-samples t-test compared perceived stress between the arts and non-arts groups. Pearson's correlation examined the relationship between participation frequency and stress. One-way ANOVA assessed differences in stress across artistic activities. Chi-square tests examined associations between gender, occupational status, and art-form preference. Statistical significance was assessed at the .05 level. Brief COPE subscales were compared between groups using independent-samples t-tests, with a Bonferroni-adjusted  $\alpha$  of .008 for the six subscales.

## 5. Results and Discussion

### 5.1 Descriptive Findings

The mean PSS-10 score was 21.78 ( $SD = 6.15$ , range 8–38), within the 14–26 band commonly classed as mid-range stress. Scores showed mild positive skew (0.59), and the Shapiro-Wilk test was significant,  $W(95) = 0.966$ ,  $p = .014$ ; however, the t-test is robust at this sample size, and a Mann-Whitney test gave the same conclusion ( $U = 1314$ ,  $p = .120$ ), so parametric tests were retained. Most arts participants practised their main art form a few times a week or daily. Music or singing (20.4%), painting or drawing (18.5%) and photography (16.7%) were the most common (Table 1).

**Table 1:** Art forms and perceived stress (PSS-10) by art form (arts group,  $n = 54$ )

| Art form                       | N  | %    | M     | SD    |
|--------------------------------|----|------|-------|-------|
| Music and singing              | 11 | 20.4 | 23.36 | 4.13  |
| Painting and drawing           | 10 | 18.5 | 21.30 | 4.69  |
| Photography                    | 9  | 16.7 | 23.56 | 3.84  |
| Dance and movement             | 7  | 13.0 | 18.86 | 3.13  |
| Embroidery and textile arts    | 6  | 11.1 | 21.17 | 9.26  |
| Journaling or creative writing | 4  | 7.4  | 19.00 | 6.68  |
| Mixed media or collage         | 2  | 3.7  | 23.00 | 2.83  |
| Pottery or clay work           | 2  | 3.7  | 28.50 | 13.44 |
| Gaming                         | 1  | 1.9  | 36.00 | -     |
| Poster designing               | 1  | 1.9  | 27.00 | -     |
| Sports                         | 1  | 1.9  | 24.00 | -     |
| Total                          | 54 | 100  | 22.35 | 5.76  |

### 5.2 Arts Participation and Perceived Stress (H1a)

Arts participants ( $M = 22.35$ ,  $SD = 5.76$ ) did not differ significantly from non-participants ( $M = 21.02$ ,  $SD = 6.62$ ),  $t(93) = 1.043$ ,  $p = .300$ ,  $d = 0.22$ , 95% CI of the difference  $[-1.20, 3.85]$ . The result was the same when equal variances were not assumed,  $t(79.43) = 1.024$ ,  $p = .309$ . H1a was therefore not supported. The arts group's slightly higher mean should not be read as evidence that the arts raise stress. With a cross-sectional design, it may equally reflect people who already feel stressed turning to creative activity. The study also did not establish whether participants used art to cope or simply for recreation.

### 5.3 Frequency of Arts Participation and Perceived Stress (H1b)

Frequency (coded 1 = every day to 5 = very rarely) was not significantly correlated with perceived stress among arts participants,  $r = .041$ ,  $p = .766$ . The positive sign reflects marginally lower stress with more frequent participation, but the relationship is negligible.

### 5.4 Differences Across Art Forms (H1c)

Mean stress ranged from 18.86 (SD = 3.13) among dance or movement participants to 28.50 (SD = 13.44) among pottery participants, but the ANOVA was not significant,  $F(10, 43) = 1.529$ ,  $p = .162$ , so H1c was not supported. The effect size was large in this sample ( $\eta^2 = .26$ ), but this is unreliable because four art forms had only one or two participants (for example, the single gaming participant scored 36). Levene's test was borderline ( $p = .052$ ). No art form can therefore be called more or less effective for managing stress.

### 5.5 Gender, Occupational Status, and Art-Form Preference (RQ4)

Gender was not significantly associated with art-form preference on the Pearson test,  $\chi^2(10) = 16.489$ ,  $p = .086$ , although the likelihood-ratio test was significant,  $\chi^2(10) = 19.613$ ,  $p = .033$ . Occupational status was not associated with art form,  $\chi^2(50) = 41.778$ ,  $p = .789$ . In both analyses, most cells had expected counts below five (81.8% for gender, 100% for occupation), so these tests are unreliable. The divergent gender results illustrate this, and RQ4 is better described as unresolved than answered.

### 5.6 Coping strategies (RQ5, exploratory)

Arts participants scored higher than non-participants on total Brief COPE,  $t(93) = 2.66$ ,  $p = .009$ ,  $d = 0.55$ , and on emotional support,  $t(93) = 2.91$ ,  $p = .005$ ,  $d = 0.60$ , and venting,  $t(93) = 3.19$ ,  $p = .002$ ,  $d = 0.66$  (Table 2). Both subscale differences remained significant after Bonferroni correction ( $\alpha = .008$ ). Differences in self-distraction, positive reframing, acceptance and spirituality were small and not significant.

**Table 2:** Brief COPE subscales by group (M, SD)

| Subscale           | Arts<br>(n=54) | Non-arts<br>(n=41) | t<br>(93) | p    | d    |
|--------------------|----------------|--------------------|-----------|------|------|
| Self-distraction   | 2.79 (0.80)    | 2.54 (0.92)        | 1.41      | .161 | 0.29 |
| Emotional support  | 2.69 (0.94)    | 2.11 (0.98)        | 2.91      | .005 | 0.60 |
| Positive reframing | 2.73 (0.82)    | 2.40 (0.96)        | 1.80      | .075 | 0.37 |
| Venting            | 2.69 (0.91)    | 2.05 (1.02)        | 3.19      | .002 | 0.66 |
| Acceptance         | 3.00 (0.72)    | 2.76 (0.87)        | 1.49      | .140 | 0.31 |
| Spirituality       | 2.90 (0.90)    | 2.78 (1.02)        | 0.59      | .554 | 0.12 |
| Total (12 items)   | 33.57 (7.02)   | 29.27 (8.76)       | 2.66      | .009 | 0.55 |

Subscale scores are item means (range 1-4); the total is the sum of 12 items (range 12-48)

### 5.7 Overall Discussion

We did not find a statistically significant relationship between participation in everyday expressive arts and perceived stress. This contrasts with encouraging findings from arts and health reviews and intervention studies [6–10], but those studies mostly involved structured or facilitated activity, or clinical

settings. Everyday participation is a looser exposure. Purpose, depth, and meaning vary, and this study measured those qualities only crudely. The PSS-10 also captures stress over the past month, which may miss the short-term relief that creative activity can bring. With 95 participants, the study could not reliably detect small effects, and the confidence interval for the group difference is compatible with anything from slightly lower stress in the arts group to modestly higher stress. Although stress did not differ, arts participants reported more emotional support seeking and venting, which suggests that creative activity may be linked to how some young adults process emotions rather than to lower stress levels. Because the design is cross-sectional, we cannot tell whether arts participation encourages these strategies or whether people who already express feelings openly are drawn to the arts. The stress results are best read as an absence of evidence in this sample, not as evidence that the arts have no value for well-being.

### 5.8 Limitations

The sample was small ( $N = 95$ ) and not powered to detect small effects. The sample was predominantly female (70.5%) and recruited through purposive and snowball online sampling, introducing self-selection and excluding people without reliable internet access. The cross-sectional design prevents causal inference. All measures were self-reported, and the Expressive Arts Participation Questionnaire was self-developed with limited validation. Participation was assessed by type and frequency but not by intention or personal meaning. Some activities, such as gaming, poster design and sports, may not conventionally count as expressive arts, and several categories were very small. Hence, the ANOVA and chi-square results are exploratory. The coping analysis was exploratory and relied on two-item subscales (the acceptance subscale had low reliability).

## 6. Conclusion

This study examined expressive arts participation and perceived stress among 95 young adults aged 18–25 years in India. The results showed no statistically significant difference in perceived stress between participants who engaged in expressive arts and those who did not. Participation frequency was not significantly correlated with perceived stress, and differences across art forms were not statistically significant. The analyses also found no significant associations between gender, occupational status, and art-form preference.

The study contributes to the discussion of everyday creative engagement by examining multiple artistic activities in a non-clinical population. However, the findings do not establish that participation in expressive arts reduces stress. Larger studies using more detailed measures of creative engagement are needed to investigate this relationship further. Arts participants did report greater emotional support seeking and venting, which warrants replication.

## 7. Future Scope

Future research should use larger, more diverse samples to improve the generalisability of findings. More balanced

representation across gender and occupational groups would strengthen comparisons between participants. Longitudinal studies could examine whether changes in participation in expressive arts are associated with changes in perceived stress over time. Intervention-based studies could also compare stress levels before and after structured creative activities, providing a stronger basis for evaluating potential effects.

### Declarations

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**Data availability:** The data are available from the corresponding author on reasonable request.

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