



Research Paper

Impact of Academic and Occupational Workload on Social Interaction and Quality of Life Among Young Adults

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Abstract

Background: Academic and occupational demands can compete with one for rest, personal Activities and social Relationships. Quality of life is multidimensional and includes physical, psychological and social aspects.

Objectives :

- (1) to assess the level of academic and occupational workload among young adults
- (2) to assess their level of social interaction
- (3) to assess their quality of life

Methods: A cross-sectional online survey was analyzed. The submitted dataset contained 57 complete responses collected from 25 September to 1 October 2026. The questionnaire included 13 workload items (Q2–Q14), 13 social-interaction items (Q15–Q27), and 12 quality-of-life items (Q28–Q39), with an additional overall quality-of-life rating (Q40). Domain scores were calculated on 1–5 item scales after reverse scoring negatively worded items. Descriptive statistics, Spearman rank correlations and exploratory Kruskal–Wallis testing were used.

Results: Among respondents, 20/57 (35.1%) reported 5–7 hours/day of academic or occupational activity, 13 (22.8%) reported 8–10 hours, 15 (26.3%) reported 2–4 hours, 6 (10.5%) reported >10 hours and 3 (5.3%) reported <2 hours. Mean workload score was 3.26 ± 0.53 ; mean social-interaction score was 3.13 ± 0.44 ; and mean quality-of-life score was 3.11 ± 0.35 . Workload was positively correlated with the social-interaction score (Spearman $\rho = 0.486$, $p < 0.001$), while its association with quality of life was weaker and did not reach conventional statistical significance ($\rho = 0.247$, $p = 0.064$). Social interaction showed a modest positive correlation with quality of life ($\rho = 0.288$, $p = 0.030$).

Conclusion: In this sample, greater reported workload was associated with higher scores on the constructed social-interaction scale, an unexpected direction that may reflect the questionnaire design, reverse-scoring assumptions, sample composition or unmeasured confounding. No causal inference can be made. The findings support further research using validated instruments and a larger, demographically characterized sample.

Keywords: academic workload; occupational workload; social interaction; quality of life; young adults

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I. Introduction

Young adulthood is a period in which education, employment, social relationships and independent living frequently develop simultaneously. The demands associated with study and work can therefore compete

with me available for sleep, leisure, family life and social participation. Research on young workers has identified working hours, job demands, employment conditions and social support as relevant psychosocial exposures, although the strength and consistency of associations vary across studies^{1,2}.

Long working hours have also been investigated in relation to mental health. A systematic review and meta-analysis including 35 studies and 189,729 participants reported a small but statistically significant association between long working hours and onset of depressive symptoms³. Evidence on working hours and mental-health burden is not completely consistent, however, emphasizing the importance of considering the broader work environment rather than hours alone⁴. Psychosocial work characteristics have also been linked to sleep quality, with job demands and related conditions forming an important area of occupational-health research⁵.

Social relationships are an important component of health and well-being. A large meta-analytic review of 148 studies found that stronger social relationships were associated with lower mortality risk⁶. In young adulthood, work-family interference may also be particularly relevant because individuals are simultaneously managing educational, occupational and family roles⁷. These findings provide a rationale

The World Health Organization conceptualizes quality of life as an individual's perception of their position in life within their cultural and valuesystem context, including physical health, psychological state, social relationships and environment. Because workload may affect several of these domains simultaneously, assessing quality of life alongside social interaction may provide a broader picture of the lived experience of academic and occupational demands.

Objectives :

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II. Methodology

Study Design

A cross-sectional survey-based study was conducted to assess academic and occupational workload, social interaction, and quality of life among young adults and to examine associations among these domains.

Study Period

The study was conducted from 1 August 2026 to 1 October 2026. Study Place

The study was conducted through an online questionnaire-based survey among eligible young adult participants.

Study Population

The study population comprised young adults who participated in the online survey. The questionnaire assessed academic and occupational workload, social interaction, and quality of life.

Inclusion Criteria

1. Adults aged ≥ 18 years. 2. Both males and females. 3. Individuals engaged in academic and/or occupational activities, including different types of occupations. 4. Individuals willing to participate in the study and provide the required information.

Exclusion Criteria

1. Individuals unable to understand or complete the study questionnaire. 2. Seriously ill individuals who were unable to provide the required information. 3. Individuals submitting incomplete responses.

Sample Size Calculation

For the cross-sectional study, the single-proportion formula was used: $n = Z^2 \times p \times q / E^2$, where n = required sample size; p = assumed proportion =

50% (0.50); $q = 1 - p = 0.50$; $Z = 1.96$ for a 95% confidence level; and E = absolute allowable error = 20% (0.20). Therefore, $n = (1.96)^2 \times (0.50) \times$

$(0.50) / (0.20)^2 = 24.01$. Hence, the minimum required sample size was 25 participants. A total of 57 complete responses were available and included in the final analysis.

Sampling Technique

A non-random convenience sampling technique was used for participant recruitment through an online questionnaire.

Data Collection

Data were collected using a pre-structured, investigator-developed 40-item questionnaire. Information was obtained regarding daily academic/occupational activity, workload-related experiences, social interaction, and quality-of-life-related experiences, including sleep/rest,

fatigue, mental exhaustion, personal activities, emotional well-being and overall quality of life.

Ethical Considerations

Institutional Ethics Committee (IEC) approval was obtained prior to commencement of the study. The study was conducted after obtaining the required ethical approval and in accordance with applicable ethical principles for research involving human participants.

III. Results

The final analysis included 57 complete responses. The largest group reported 5–7 hours/day of academic or occupational activity (35.1%), followed by 2–4 hours (26.3%) and 8–10 hours (22.8%). A total of 10.5% reported more than 10 hours/day.

Table 1. Daily academic/occupational activity reported by respondents

Daily hours	n	%
Less than 2 hours	3	5.3
2–4 hours	15	26.3
5–7 hours	20	35.1
8–10 hours	13	22.8
More than 10 hours	6	10.5

Table 2. Domain score summary (1–5)

Domain	Items	Mean±SD	Median	Range	Cronbach α
Academic/occupational workload	Q2–Q14	3.26±0.53	3.15	2.00–5.00	0.83
Social interaction	Q15–Q27	3.13±0.44	3.23	2.08–4.08	0.63
Quality of life	Q28–Q39	3.11±0.35	3.17	2.00–3.75	0.39

Table 3. Associations among study domains

Variables	Spearman ρ	p value	Interpretation
Workload vs social interaction	0.486	<0.001	Positive association
Workload vs quality of life	0.247	0.064	Not statistically significant
Social interaction vs quality of life	0.288	0.030	Positive association

The exploratory Kruskal–Wallis comparison of workload scores across daily-hour categories was statistically significant ($H=10.32$, $p=0.035$). This result should be considered exploratory because the five groups were uneven in size, including only three respondents in the <2-hour category.

The direction of the workload–social-interaction association warrants particular caution. Because several social-interaction questions were positively worded while Q25–Q27 were negatively worded and reverse scored, the composite score reflects the operational definition used for this analysis rather than a validated standardized social-interaction instrument. The association should therefore not be interpreted as evidence that greater workload improves social relationships.

Explanation of Results This cross-sectional analysis found moderate average scores across the three investigator-defined domains. The sample included a substantial proportion of respondents reporting 5–7 hours or more of daily academic/occupational activity, and many questionnaire items addressed deadline

The results table summarizes the major findings obtained from the 57 participants included in the study. The largest proportion of participants (35.1%) pressure, mental exhaustion, difficulty taking breaks, sleep interference and reduced time for personal activities. These domains are consistent with reported 5–7 hours of daily academic or occupational activity, followed by 26.3% reporting 2–4 hours and 22.8% reporting 8–10

hours. A smaller established occupational-health frameworks in which job demands, control and social support are considered interconnected determinants of strain proportion reported more than 10 hours (10.5%), while 5.3% reported less than 2 hours per day. and well-being.

The mean academic/occupational workload score was 3.26 ± 0.53 , indicating a moderate level of workload in the study population. The social-interaction score had a mean of 3.13 ± 0.44 , while the mean quality-of-life score was 3.11 ± 0.35 , also indicating moderate average scores. Internal consistency was The observed positive correlation between workload and the constructed social-interaction score ($p=0.486$, $p<0.001$) differs from the highest for the workload domain (Cronbach's $\alpha = 0.83$), followed by social interaction ($\alpha = 0.63$). Quality of life showed lower internal consistency ($\alpha = 0.39$) =straightforward hypothesis that heavier workload would reduce social interaction. Several explanations are possible without assuming causality.

First, the sample may include individuals who maintain strong social contact despite high demands. Second, the questionnaire measures both, requiring cautious interpretation. positive social engagement and workload-related social restriction, and the reverse-scoring scheme may not capture the full multidimensional structure of social interaction. Correlation analysis demonstrated a statistically significant positive association between workload and social interaction (Spearman $\rho = 0.486$, $p < 0.001$). Third, demographic and contextual variables such as age, student versus worker status, living arrangement, income, However, because the social-interaction measure was investigator-developed and included reverse-scored items, this finding should not be interpreted as relationship status and social-support availability were not collected in the supplied dataset. Finally, crosssectional data cannot establish temporal evidence that higher workload improves social relationships. direction.

The association between workload and quality of life was positive but not statistically significant ($\rho = 0.247$, $p = 0.064$). In contrast, social interaction showed a modest statistically significant positive association with quality of life ($\rho = 0.288$, $p = 0.030$). An exploratory Kruskal-Wallis test also showed The workload-quality-of-life correlation was positive but not statistically significant ($\rho=0.247$, $p=0.064$). This result should not be interpreted as significant difference in workload scores across daily activity categories ($H = 10.32$, $p = 0.035$), although the unequal and small subgroup sizes warrant evidence of no relationship; rather, the present sample did not provide sufficient statistical evidence at the conventional 0.05 threshold. Quality of caution.

life is multidimensional, and the WHOQOL framework emphasizes physical, psychological, social and environmental aspects. The relatively heterogeneous items used in the present questionnaire may therefore capture different dimensions that do not necessarily move together.

Social interaction was modestly positively associated with quality of life ($\rho=0.288$, $p=0.030$). This finding is directionally compatible with broader literature emphasizing the health relevance of social relationships. However, the magnitude was modest and the study design does not establish that social interaction causes better quality of life. The finding should be viewed as an association requiring confirmation with validated measures and larger samples.

The internal-consistency estimates also provide an important methodological lesson. Workload items showed comparatively good internal consistency ($\alpha=0.83$), whereas social interaction was lower ($\alpha=0.63$) and quality of life was low ($\alpha=0.39$). The latter values suggest that the domains may contain heterogeneous constructs or that the present item set is not sufficiently coherent to function as a validated scale. The questionnaire should therefore be considered an investigator-developed exploratory instrument rather than a validated measure. If the study is

IV. Discussion

This cross-sectional analysis found moderate average scores across the three investigator-defined domains. The sample included a substantial proportion of respondents reporting 5–7 hours or more of daily academic/occupational activity, and many questionnaire items addressed deadline pressure, mental exhaustion, difficulty taking breaks, sleep interference and reduced time for personal activities. These domains are consistent with established occupational-health frameworks in which job demands, control and social support are considered interconnected determinants of strain and well-being.

The observed positive correlation between workload and the constructed social-interaction score ($\rho=0.486$, $p<0.001$) differs from the straightforward hypothesis that heavier workload would reduce social interaction. Several explanations are possible without assuming causality. First, the sample may include individuals who maintain strong social contact despite high demands. Second, the questionnaire measures both positive social engagement and workload-related social restriction, and the reverse-scoring scheme may not capture the full multidimensional structure of social interaction. Third, demographic and contextual variables such as age, student versus worker status, living arrangement, income, relationship status and social-support

availability were not collected in the supplied dataset. Finally, cross-sectional data cannot establish temporal direction.

The workload–quality-of-life correlation was positive but not statistically significant ($p=0.247$, $p=0.064$). This result should not be interpreted as evidence of no relationship; rather, the present sample did not provide sufficient statistical evidence at the conventional 0.05 threshold. Quality of life is multidimensional, and the WHOQOL framework emphasizes physical, psychological, social and environmental aspects. The relatively heterogeneous items used in the present questionnaire may therefore capture different dimensions that do not necessarily move together.

Social interaction was modestly positively associated with quality of life ($p=0.288$, $p=0.030$). This finding is directionally compatible with broader literature emphasizing the health relevance of social relationships. However, the magnitude was modest and the study design does not establish that social interaction causes better quality of life. The finding should be viewed as an association requiring confirmation with validated measures and larger samples.

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expanded for publication, use of validated instruments such as WHOQOL-BREF for quality of life, together with a validated workload/stress and social-support or social-network measure, would strengthen construct validity.

Previous literature supports the importance of work demands, sleep, social support and mental well-being, but it also shows that associations vary by context and measurement. Reviews of long working hours and depressive symptoms suggest a measurable association in prospective data while reviews of working hours and mental-health burden have reported inconsistent results across studies. This reinforces the need to avoid attributing all observed differences in quality of life or social interaction to workload alone.

The sample was small and apparently convenience-based, with no demographic information available in the supplied dataset. The study was cross-sectional, so temporal and causal relationships cannot be established. The questionnaire was investigator-developed and not formally validated. Internal consistency was low for the quality-of-life domain. The operational scoring of social interaction and quality of life combines different response formats and conceptually heterogeneous items. The source file did not document eligibility criteria, sampling frame, response rate, or institutional affiliation. The ethics statement reflects the investigator's stated information that IEC approval was obtained before research commencement; the formal approval/reference number should be inserted if required by the journal

V. Conclusion

Among the 57 respondents analyzed, academic/occupational workload, social interaction and quality of life showed moderate average domain scores. Workload was significantly associated with the constructed social-interaction score, whereas its association with quality of life was not statistically significant in this sample. Social interaction showed a modest positive association with quality of life. Because the direction of the workload–social-interaction association was unexpected and the instrument was not validated, the results should be regarded as exploratory. Larger studies using validated instruments, predefined sampling methods and demographic/occupational covariates are needed before drawing broader conclusions about young adults.

Limitations

The sample was small and apparently convenience-based, with no demographic information available in the supplied dataset. The study was cross-sectional, so temporal and causal relationships cannot be established. The questionnaire was investigator-developed and not formally validated. Internal consistency was low for the quality-of-life domain.

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Conflict of Interest- There was no conflict of interest in relation to this study.

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