Gaudibility as a predictor of quality of life and happiness in students of higher technological institutes in Chiclayo, Peru

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Abstract: This study aimed to analyze whether gaudibility, understood as the set of skills, beliefs, and habits that facilitate enjoyment, predicts quality of life and happiness in students from higher technological education institutions in Chiclayo, Peru. A quantitative, non-experimental, cross-sectional, and associative–predictive design was adopted. The sample consisted of 510 students aged 15 to 18 years, selected through probabilistic simple random sampling. Gaudibility was assessed using the Gaudibility Scale, happiness with the Lima Happiness Scale, and quality of life with the Olson and Barnes Quality of Life Scale. Data were analyzed using Spearman's rho and regression model fit tests. The results showed positive and statistically significant correlations between gaudibility and quality of life ($\rho = 0.2433$; $p < 0.001$), as well as between gaudibility and happiness ($\rho = 0.3901$; $p < 0.001$). It is concluded that gaudibility is a relevant predictor of subjective well-being in this population. These findings suggest that strengthening enjoyment-related competencies may be an effective strategy for mental health promotion in educational settings.

Keywords: Gaudibility, Happiness, Quality of life.

1. Introduction

The context of adolescent and early youth mental health in Peru emphasizes the urgency of identifying protective factors. National surveillance data and epidemiological analyses indicate that self-harm and suicide-related outcomes are significant public health concerns. Contreras-Córdova and colleagues described suicides in Peru using national death registry data (SINADEF), providing evidence that these events warrant sustained prevention and promotion efforts [1]. At the same time, global evidence indicates that young people remain exposed to substance-use risks and their consequences; the UNODC World Drug Report highlights that drug markets and consumption patterns are dynamic and can intersect with mental health vulnerabilities, especially among youth [2]. Within this broader public health landscape, strengthening positive resources that support adaptive coping and healthy reward experiences may contribute to prevention indirectly. In this sense, gaudibility may complement other protective strategies because it targets enjoyment modulators linked to everyday reward and can be incorporated into psychoeducational programs alongside evidence on risky alcohol use in adolescents [3].

In line with this conceptual background, prior work in the region supports the relevance of measuring happiness as both affective and cognitive well-being. Alarcón's theoretical development emphasizes that happiness integrates meaning, satisfaction, personal realization, and joy of living [4] while classic subjective well-being theory highlights life satisfaction and affect balance as core components [5, 6]. Similarly, quality of life research in Peru has relied on validated instruments and applications, including the Peruvian adaptation of the Olson & Barnes scale [7] and later empirical work on quality of life in professional populations [8]. Recent evidence continues to refine the gaudibility framework by examining its links with anticipatory punishment sensitivity and related

affective-cognitive processes [9]. Biological and public health perspectives indicate that happiness is associated with health-relevant mechanisms, emphasizing the importance of promoting well-being during adolescence and emerging adulthood [10].

2. Method

2.1. Design and Approach

The research followed a basic, quantitative approach with a non-experimental, cross-sectional, associative–predictive strategy. This design is appropriate when the goal is to examine functional relationships among variables without manipulating them and when data are collected at a single time point [1]. The study aligns with a widely used system for classifying research designs in psychology, which distinguishes descriptive, associative, and predictive goals and recognizes that predictive designs can be implemented in non-experimental contexts [11].

2.2. Population, Context, and Sample

The study was conducted in higher technological educational institutions located in Chiclayo, Peru. This educational context is relevant because students typically transition from adolescence to emerging adulthood while managing academic workload and decisions about employment and vocational identity. The target population comprised 14,415 active students enrolled in higher technological institutes in Chiclayo, according to official educational census data [12]. A probabilistic simple random sample of 510 students was selected, ensuring that all eligible students in the sampling frame had the same probability of selection, consistent with principles of quantitative sampling [13].

Inclusion criteria were: (a) enrollment in the 2024-II semester; (b) attendance in the first or second academic cycle; (c) age between 15 and 18 years; and (d) provision of informed consent and, where applicable, assent. These criteria aimed to focus on an age group and academic stage characterized by significant developmental and educational transitions. Exclusion criteria included incomplete questionnaires or withdrawal from participation at any time.

2.3. Measures and Operationalization

All measures were administered using self-report questionnaires. Self-report is a standard approach in subjective well-being research because it captures individuals' evaluations of their internal states and life satisfaction, which are inherently subjective [5, 14]. Likert-type response formats were used to facilitate comprehension and efficient administration in classroom settings.

Gaudibility was assessed using the Gaudibility Scale proposed by Padrós and Fernández-Castro [15], which operationalizes enjoyment modulators across skills, beliefs, and lifestyle components described in the gaudibility framework [16]. For local contextualization, the instrument was considered alongside evidence of adaptation and application in Peruvian adolescent samples [17]. Psychometric evidence for the scale has been reported in different populations, supporting its reliability and construct validity [18].

Happiness was assessed using the Lima Happiness Scale developed by Alarcón [4]. This instrument reflects a multidimensional conception of happiness that includes: positive sense of life, life satisfaction, personal fulfillment, and joy of living [4, 19]. This conceptualization aligns with broader subjective well-being frameworks and has been used in Latin American research contexts.

Quality of life was assessed using the Olson & Barnes Quality of Life Scale. In Peru, Grimaldo contributed to the adaptation of this scale and its use in research contexts [7, 8]. The instrument captures satisfaction across domains such as home and economic well-being, friends and community, family life, education and leisure, media, religion, and health, consistent with multidimensional theories of quality of life [14]. A domain-based approach is advantageous because it enables identification of life areas most strongly associated with gaudibility, supporting targeted intervention planning.

Because well-being is multi-determined, the present study focused on gaudibility as a predictor, while acknowledging that other resources, such as meaning in life, optimism, mindfulness, social support, and self-esteem, may also contribute to happiness and quality of life [20-24].

2.4. Procedure and Ethical Considerations

Data collection was conducted through classroom-based surveys after coordination with institutional authorities. The research team explained the study's purpose, voluntary nature, and procedures. Students were informed that participation was optional and they could withdraw at any time without academic consequences. To protect confidentiality, questionnaires did not collect identifying information, and data were stored in password-protected files accessible only to the research team.

Ethical principles were applied according to widely recognized guidelines in research methodology, including respect for autonomy, beneficence, non-maleficence, and justice [13]. The study followed institutional ethical requirements of the Universidad César Vallejo ethics framework. Additionally, given the importance of youth mental health and risk behaviors, the team prepared referral information for students who expressed distress or requested support, consistent with best practices in educational research with adolescents.

2.5. Data Analysis Plan

Analyses were conducted in R. First, descriptive statistics were computed to characterize the distribution of gaudibility, happiness, and quality of life. Associations between gaudibility and outcome variables were then estimated using Spearman's rho because questionnaire responses were ordinal and did not necessarily meet assumptions for parametric correlations [13]. Effect sizes were interpreted considering that small-to-moderate correlations can still be meaningful in psychological and educational research, particularly when outcomes are multi-determined.

To examine predictive relationships, regression models were estimated with audibility as a predictor and quality of life and happiness as outcome variables. Model efficiency and overall fit were assessed using ANOVA-based model comparison. Model assumptions were evaluated using heteroscedasticity diagnostics. Specifically, the Breusch–Pagan test was used to assess whether residual variance was constant; non-significant p-values indicate that heteroscedasticity is not a concern for the estimated models. This analytic strategy aligns with an associative–predictive approach where prediction is evaluated through model fit and diagnostics rather than causal inference [11].

3. Results

A total of 510 students provided complete data for the main variables. Descriptively, 44.4% of respondents reported high endorsement of enjoyment modulators, while 2.4% reported low endorsement. Regarding happiness, 43.8% self-reported being happy, and 5.4% disagreed with happiness statements. For quality of life, 39.2% were 'quite satisfied,' 32.6% 'completely satisfied,' and 28.3% 'moderately satisfied,' with no respondents reporting dissatisfaction across categories. These patterns suggest that a substantial proportion of students perceive themselves as enjoying life and evaluating their life conditions positively, leaving room for targeted well-being promotion efforts.

3.1. Associations Between Gaudibility, Quality of Life, and Happiness

Table 1.
Correlations between gaudibility and well-being outcomes.

Variables	Spearman's ρ	p-value	N
Gaudibility – Quality of life	0.2433	2.613e-08	510
Gaudibility – Happiness	0.3901	2.2e-16	510

Gaudibility was positively correlated with both quality of life and happiness. The association with happiness was stronger ($\rho = 0.3901$) than with quality of life ($\rho = 0.2433$). This pattern is conceptually coherent: gaudibility is an enjoyment-modulation construct and may be more proximally linked to affective well-being and satisfaction evaluations embedded in happiness frameworks [5, 15, 19]. Meanwhile, quality of life includes multiple contextual domains that may be influenced by structural conditions (e.g., family economy, health resources), potentially attenuating the magnitude of correlations [14].

3.2. Predictive Model Diagnostics

Table 2.
Model diagnostics for predictive analyses.

Outcome	Breusch–Pagan p-value	ANOVA model p-value
Quality of life	0.2633	2.2e-16
Happiness	0.2683	2.2e-16

Regression diagnostics indicated that the Breusch–Pagan tests were non-significant for both outcomes, suggesting that heteroscedasticity was not present at a level that would threaten inference. Additionally, ANOVA-based model fit tests were significant for both outcomes, indicating that models including gaudibility as a predictor provided substantially better fit than intercept-only models. While these analyses do not establish causality, they support the predictive usefulness of gaudibility for explaining variance in happiness and quality of life in this sample, consistent with predictive design logic [11].

3.3. Domain-Level Associations with Quality of Life

Table 3.
Correlations between gaudibility and quality of life domains.

Quality of life domain	Spearman's ρ	p-value	N
Home & economic well-being	0.1723	9.161e-05	510
Friends, neighborhood & community	0.1857	2.434e-05	510
Family life & extended family	0.1643	0.0001924	510
Education & leisure	0.1513	0.0006076	510
Media	0.1842	2.842e-05	510
Religion	0.1176	0.007798	510
Health	0.1190	0.00712	510

Gaudibility showed significant positive correlations with all quality of life domains. Associations were relatively stronger for social and community-related domains (friends/neighborhood/community; media), as well as home/economic well-being, suggesting that enjoyment modulators may support a more positive appraisal of daily environments and interpersonal contexts. Although the correlations were modest, they were consistent across domains, indicating that gaudibility may contribute to a generalized tendency to evaluate life conditions more favorably, potentially by increasing the frequency of rewarding experiences within each domain [14, 15].

3.4. Dimension-Level Associations with Happiness

Table 4.
Correlations between gaudibility and happiness dimensions.

Happiness dimension	Spearman's ρ	p-value	N
Positive sense of life	0.2426	2.864e-08	510
Life satisfaction	0.3553	2.2e-16	510
Personal fulfillment	0.2872	3.819e-11	510
Joy of living	0.2330	1.021e-07	510

All happiness dimensions correlated positively with gaudibility. The strongest association was observed for life satisfaction ($\rho = 0.3553$), followed by personal fulfillment. This suggests that students who endorse greater enjoyment modulators are more likely to evaluate their lives positively and perceive themselves as progressing toward personal goals. These findings are compatible with the view that enjoyment is not only an affective experience but also influences cognitive evaluations of life conditions, consistent with subjective well-being theory [5, 6] and Alarcón's conceptualization of happiness [4, 19].

4. Discussion

Finally, it is important to distinguish hedonic-related resources such as gaudibility from broader eudaimonic frameworks. Psychometric analyses of Ryff's psychological well-being scales in adolescent samples underscore that well-being also includes autonomy, purpose, and personal growth dimensions that may not be fully captured by hedonic enjoyment alone [25]. Likewise, models integrating quality of working life and mental health emphasize that well-being is shaped by role demands and psychosocial environments as individuals transition into employment [26]. Because students in technological institutes are close to entering the workforce, future studies could integrate gaudibility with eudaimonic and occupational well-being measures to better map developmental trajectories [25, 26].

This study evaluated whether gaudibility predicts quality of life and happiness among students of higher technological institutes in Chiclayo, Peru. The results provide empirical support for gaudibility as a positive correlate and predictor of well-being indicators. Specifically, gaudibility showed a positive association with overall quality of life and happiness, and it was significantly related to all quality of life domains and happiness dimensions.

First, the positive association between gaudibility and happiness is consistent with theoretical accounts that conceptualize gaudibility as a set of modulators that amplify enjoyment and, by extension, positive affective states and cognitive evaluations of life [15, 16]. In the present study, gaudibility was most strongly related to life satisfaction. This result is plausible because life satisfaction is a cognitive appraisal that may be shaped by the cumulative impact of enjoyable experiences and by the ability to derive pleasure from ordinary activities. Diener emphasized that life satisfaction reflects a judgment process influenced by personal standards, expectations, and affective experiences [5, 6]. If gaudibility strengthens the capacity to initiate and maintain pleasurable experiences, it may increase the amount of positive information available when individuals judge their life quality, raising satisfaction.

Second, gaudibility correlated positively with all happiness dimensions defined by Alarcón, including positive sense of life, personal fulfillment, and joy of living [4, 19]. This pattern suggests that enjoyment modulators may extend beyond momentary pleasure to broader meanings. Personal fulfillment involves a sense of growth and achievement. Gaudibility-related behaviors such as planning rewarding activities, using imagination, and engaging in humor may support sustained motivation and engagement, facilitating accomplishment and perceived fulfillment. Additionally, a positive sense of life reflects optimism and favorable interpretations of one's circumstances. Here, gaudibility may interact with cognitive styles. Cognitive models of depression highlight the importance of negative beliefs and distortions in shaping mood [27]. By contrast, gaudibility may promote flexible attention and positive

reappraisal, helping students notice rewarding aspects of life and reducing the impact of negative cognitive biases.

Third, gaudibility was significantly associated with overall quality of life and each of its domains. Quality of life is multidimensional and includes areas that are not purely psychological (e.g., economic resources, health). Nonetheless, the consistent pattern suggests that gaudibility is linked to a generalized positive appraisal of life domains. This aligns with theoretical reviews emphasizing that quality of life incorporates subjective satisfaction across life areas and is influenced by both context and psychological resources [14]. It also complements Peruvian evidence on quality of life measurement and application, including adaptations and studies by Grimaldo [7] and Grimaldo [8].

The strongest domain-level associations in this study were found in friends, neighborhood, community, and media. These domains involve interaction with social environments and everyday informational and entertainment contexts. Gaudibility modulators include skills such as humor and the capacity to enjoy social situations, which may enhance positive peer interactions and perceived community support. This resonates with Peruvian findings that linked gaudibility with perceived community support among adolescents in contexts involving peer violence, suggesting that enjoyment-related resources may help adolescents navigate and interpret their social environment more positively [17]. Social support, in turn, is a well-established correlate of happiness and well-being [21], which may partly explain why social domains show meaningful links to gaudibility.

From an applied perspective, the results suggest that promoting gaudibility-related skills could contribute to mental health promotion in educational institutions. Gaudibility includes learnable elements such as attention control, concentration, imagination, humor, and planning of rewarding activities [15, 16]. These components overlap with intervention targets in behavioral activation and positive activity scheduling, as well as with socioemotional learning. In adolescence, these strategies may be particularly useful because youth face developmental pressures and may adopt risk behaviors when adaptive coping resources are limited. For example, research has linked gaudibility to risky and harmful alcohol consumption in adolescents [3]. One interpretation is that adolescents with weaker enjoyment modulators may seek external substances to obtain pleasure, whereas strengthening gaudibility could support healthier ways of experiencing enjoyment. This interpretation is coherent with broader public health concerns about substance use among young people. Global reports emphasize trends in drug use and related harms, including among youth populations [2]. Educational interventions that strengthen positive resources may complement traditional risk-focused prevention approaches.

Moreover, gaudibility may relate to other psychological resources linked to well-being. Studies indicate that meaning in life is an important factor for psychological well-being [24], optimism is associated with mental and physical health outcomes [23], and mindfulness and purpose in life are related to happiness and reduced distress [20]. Although these constructs were not measured in the present study, they offer plausible pathways. For instance, planning and engaging in enjoyable activities may increase purpose and meaning by helping students build valued routines and goals. Humor and laughter may buffer stress; longitudinal evidence suggests that laughing can have stress-buffering effects in daily life [28]. Furthermore, self-esteem has been linked to subjective well-being across personal, relational, and collective dimensions [22], and gaudibility could reinforce self-esteem by promoting successful social interactions and competence in enjoyment.

An additional implication concerns mental health and prevention in Peru. Suicides in Peru have been described using national mortality data, highlighting the need for early detection and protective factors [1]. While enjoyment is not a direct measure of suicidality, it reflects an enjoyment-related resource that may counteract anhedonia and hopelessness, which are relevant for depression and suicide risk. Similarly, models of workplace quality of life and mental health suggest that positive functioning and life satisfaction matter for occupational outcomes [26]. For students in technological institutes preparing to enter the labor market, strengthening enjoyment modulators may also facilitate healthier transitions into work roles and enhance future quality of life.

The present findings also align with psychometric and conceptual evidence supporting gaudibility as a meaningful construct. The Gaudibility Scale was originally proposed to measure modulators of enjoyment and has been evaluated psychometrically across contexts [15, 18]. Gaudibility has been discussed as a psychological resource and linked to related constructs in recent studies [9, 17]. Therefore, the observed predictive relationships are coherent with the broader literature: gaudibility is not merely a correlate of positive affect but appears to have systematic associations with multi-domain well-being indicators.

Nevertheless, several limitations should be considered. First, the study was cross-sectional, so temporal precedence cannot be established. Prediction in this context should be interpreted as statistical prediction rather than causal influence [11]. Longitudinal studies would be valuable to examine whether increases in gaudibility over time predict subsequent increases in happiness and quality of life. Second, measures were self-reported and may be affected by social desirability or common method variance. Including behavioral indicators (e.g., engagement in leisure activities) or informant reports could strengthen future research. Third, the sample was restricted to students in higher technological institutes in Chiclayo and aged 15–18, which limits generalization to other regions, age groups, or educational contexts. Given sociocultural variation in Peru, replication in other cities and university populations is recommended.

Despite these limitations, the study contributes to the literature by integrating gaudibility with two central well-being outcomes (happiness and quality of life) and by providing evidence at both overall and domain/dimension levels. The consistency of associations across domains strengthens confidence that gaudibility is broadly relevant. Future research could incorporate additional variables such as depressive symptoms (including cognitive patterns described by Beck [27]) and eudaimonic well-being measures (e.g., Ryff scales) [25], and contextual risk indicators to build a more comprehensive model of student well-being. Additionally, intervention research could evaluate whether training in audibility modulators improves outcomes. Programs could incorporate mindfulness and purpose-building components [20], strengthen social support structures [21], and cultivate optimism and meaning [23, 24] alongside enjoyment modulation skills.

In summary, the findings support gaudibility as a useful predictor of happiness and quality of life in adolescents and early youth students in Chiclayo. This supports the practical argument that educational mental health initiatives may benefit from including strategies to strengthen the modulators of enjoyment, which could contribute to both affective and cognitive components of well-being.

5. Conclusions

- Gaudibility correlated positively with both quality of life ($\rho = 0.2433$) and happiness ($\rho = 0.3901$) among students of higher technological institutes in Chiclayo.
- Significant positive relationships were observed between gaudibility and all quality of life domains ($\rho = 0.1176$–0.1857) and happiness dimensions ($\rho = 0.2330$–0.3553).
- Predictive analyses supported gaudibility as a meaningful statistical predictor of perceived quality of life and happiness in this population, based on model fit and assumption diagnostics.
- Educational mental health initiatives may benefit from including strategies to strengthen gaudibility modulators (skills, beliefs, and lifestyle habits) as part of broader well-being promotion efforts.

Transparency:

The author confirms that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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