LIFE SATISFACTION AND FUTURE EXPECTATIONS AMONG YOUNG NEETS: A MIXED METHOD APPROACH

Adriano Mauro Ellena^{*}, Giovanni De Luca^{**}, Paolo Mazzocchi^{**}, Antonella Rocca^{**}, Francisco Simoes^{***}, Elena Marta^{*}

SUMMARY

This study examines life satisfaction and future expectations among young NEETs (Not in Education, Employment, or Training) in Italy using a mixed-method approach. Based on a sample of 930 individuals aged 25-29, the research explores both the hedonic and eudaimonic dimensions of well-being. Study 1 employs a binary logit model to analyze the impact of socio-demographic factors, self-efficacy, and trauma-related symptoms (TSC) on life satisfaction. Findings indicate higher life satisfaction among women, caregivers, individuals with higher education, and those from southern regions. Additionally, self-efficacy positively influences well-being, whereas trauma-related symptoms have a negative effect. Study 2 utilizes text mining techniques to examine NEETs' aspirations, revealing a predominant focus on employment, stability, and family. Gender and regional disparities underscore the need for targeted policy interventions to address psychological and socio-economic barriers. This research highlights the importance of integrated strategies to enhance NEETs' life satisfaction and future outlook.

Keywords: NEETs, Life satisfaction, Future, Mixed method, Italy. *ISSN*: *DOI*: 10.26350/112233_000005 Creative Commons License CC-BY-NC-ND 4.0

^{*} Department of Psychology – University Cattolica del Sacro Cuore – Via L.go Gemelli, 1, 20123 Milano; Research Centre for Community Development and the organizational quality of life (CERISVICO), Università Cattolica del Sacro Cuore – Via della Garzetta 48, 25133 Brescia. E-mail Ellena: adrianomauro.ellena@unicatt.it. E.mail Marta: 🖂 elena.marta@unicatt.it.

^{**} Department of Management and Quantitative Studies [DISAQ] – University of Naples Parthenope – Via G. Parisi. 13-16, 80132 Naples, Italy. E-mail De Luca: giovanni.deluca@ uniparthenope.it. E-mail Mazzocchi: paolo.mazzocchi@uniparthenope.it. E-mail Rocca: antonella.rocca@uniparthenope.it.

^{***} Instituto Universitário de Lisboa ISCTE – Avenida das Forças Armadas, 1649-026 Lisboa. E-mail: Francisco.Simoes@iscte-iul.pt.

1.1. Introduction

The NEET (Not in Education, Employment, or Training) phenomenon in Italy presents a complex socio-economic challenge, deeply influenced by regional disparities, gender differences, and the rural-urban divide. Beyond economic implications, being NEET significantly affects subjective well-being, which can be understood through two key dimensions: hedonic well-being, linked to life satisfaction and emotional states, and eudaimonic well-being, centered on personal growth, autonomy, and purpose in life. While existing research has largely focused on structural barriers, the role of Public Employment Services (PES) in shaping NEETs' well-being remains underexplored. PES play a crucial role in bridging the gap between disengagement and labor market participation by offering job-matching services, vocational training, and career counseling. However, their effectiveness varies across regions, influencing NEETs' life satisfaction and future aspirations in different ways. This study examines how different structural and psychological elements intersect, adopting a mixed-method approach to provide a more nuanced understanding of NEETs' experiences and the factors shaping their well-being and outlook on the future.

1.2. The NEETs phenomenon in Italy

The NEET phenomenon has emerged as a critical social issue in Italy, where a substantial proportion of young people remain detached from the educational system and labour market. This disconnection, which affects roughly 20% of individuals aged 15 to 29, has significant long-term socio-economic consequences, placing Italy among the European countries with the highest NEET rates (ISTAT, 2024; Ellena et al., 2023; Mussida et al., 2021). The issue has drawn increasing attention from researchers and policymakers, particularly in light of the economic challenges posed by the financial crisis and the COVID-19 pandemic, which have amplified vulnerabilities within this demographic (Petrescu et al., 2022). Regional disparities play a central role in the prevalence of NEETs, with southern Italy exhibiting considerably higher rates compared to other regions. These differences are closely tied to lower levels of economic development, limited employment opportunities, and reduced access to quality education in the South (Quintano et al., 2018; Amendola, 2022). The economic crisis has further entrenched these inequalities, intensifying the already precarious conditions for young people in these areas (Odoardi & Liberatore, 2021). Gender disparities also significantly shape the

NEET phenomenon in Italy. Young women, particularly in southern regions, are disproportionately affected due to cultural norms and expectations that prioritise caregiving and family responsibilities over professional aspirations. Many young women in this category remain inactive due to motherhood or caregiving duties, which limit their ability to participate in the labour market (Amendola, 2022). These gendered dynamics perpetuate NEET conditions, reinforcing systemic barriers to women's economic and social engagement. The rural-urban divide adds another layer of complexity to the NEET issue. Rural areas exhibit higher NEET rates than urban centers, primarily due to limited access to education, employment opportunities, and critical infrastructure (Simões et al., 2021a; Petrescu et al., 2023). Young people in rural regions face additional barriers such as transportation difficulties, scarce local job opportunities, and heightened social isolation, which exacerbate their disengagement from education and work (Ellena et al., 2021). Furthermore, the lack of support services in these areas underscores the need for tailored interventions to address the unique challenges faced by rural NEETs. Community-based projects that foster social inclusion and offer sustainable solutions are essential to improving the quality of life for this group (Ferreira et al., 2024). A comprehensive understanding of the socio-economic context of NEETs is crucial for identifying the factors contributing to their marginalisation. While economic drivers such as the recession and declining job quality play a central role, the NEET phenomenon is equally influenced by social determinants, including family background (Alfieri et al., 2015), social networks (Bolibar et al., 2019), and local labour market conditions (De Luca et al., 2019). The interplay of these factors highlights the urgent need for targeted policy interventions that address both the structural economic challenges and the social barriers underlying the NEET crisis (Mussida et al., 2021; Odoardi & Liberatore, 2021).

1.3. *The well-being of NEETs: exploring hedonic and eudaimonic dimensions*

Before the specific challenges encountered by NEET individuals are explored, the conceptualisation of well-being must be clarified. Given the various definitions – each necessitating its own indicators and measurement tools – two overarching dimensions were selected for this study: hedonic and eudaimonic. Hedonic well-being revolves around life satisfaction, happiness, and the experience of positive emotions (Diener & Lucas, 1999). These elements can be influenced by personality factors – such as optimism and self-efficacy – and by the quality of social relationships (Cummins, 2000; Antonelli,

2007). By contrast, eudaimonic well-being emphasises the fulfilment of human potential through meaningful interactions with one's environment (Ryan & Deci, 2001). This approach, advanced by theorists like Carol Ryff (1995), highlights autonomy, environmental mastery, personal growth, positive relationships, purpose in life, and self-acceptance as core components of psychological well-being. While hedonic well-being primarily reflects the pursuit of personal satisfaction, eudaimonic well-being centers on processes of self-realisation and growth, particularly in social contexts (Delle Fave, 2007). Placing NEETs' psychological characteristics within these frameworks reveals how both hedonic and eudaimonic dimensions are affected by disengagement from education and employment. On the hedonic side, prolonged stress, anxiety and depression – often linked to stigma and social isolation – undermine positive emotions and overall life satisfaction (Parola et al., 2023; Buckman et al., 2021; Ellena et al., 2023). Low self-esteem further disrupts the capacity for immediate well-being, leaving NEET individuals vulnerable to hopelessness and alienation (Youmans et al., 2023). From a eudaimonic perspective, the lack of meaningful goals, reduced sense of autonomy, and inadequate social support impede personal growth and the pursuit of purpose in life. Difficulties in time management (Gaspani, 2018) and navigating educational or employment pathways undermine environmental mastery - a key eudaimonic dimension (Ryan & Deci, 2001; Ryff, 1995). Similarly, NEET individuals often struggle to build positive relationships characterised by mutual trust and empathy, further weakening the social processes that foster a sense of shared purpose (Simões et al., 2021b).

1.4. PES and their role in addressing NEETs

PES play a pivotal role in addressing the NEET phenomenon in Italy, particularly by facilitating the transition of young individuals into education and employment. They connect job seekers with potential employers, disseminate information on available positions, and provide active labour market policies tailored to NEET youth. As highlighted by Marzana and colleagues (2023), effective PES can significantly influence labour market integration for NEETs when considering the psychological and social dimensions of these individuals' circumstances. Outreach strategies are critical, given that many NEETs experience social isolation and limited participation in community activities (Simões, 2024). However, reaching this demographic remains challenging, especially in rural areas where service access may be restricted (Mazzocchi et al., 2024).

Both the Youth Guarantee program and the GOL (Garanzia Occupabilità

Lavoratori) initiative have become focal points of PES efforts, though success varies across regions due to differing local labor market conditions and socio-economic factors (Petrescu et al., 2022; O'Higgins, 2024; Ellena et al., 2024). The GOL program, in particular, emphasises personalised career guidance and skill-building to foster employability, thereby complementing existing PES strategies. Ultimately, the effectiveness of PES in tackling the NEET issue in Italy hinges on their ability to adapt to the unique characteristics of NEET youth and to collaborate with local institutions and civil society organisations (Marzana et al., 2023; Smoter, 2021).

1.5. The present research

The present research addresses notable gaps in the literature concerning the well-being and psychosocial characteristics of NEETs. While previous studies have highlighted socio-economic disparities and structural barriers affecting this population, comparatively little is known about how hedonic well-being (e.g., happiness, life satisfaction, emotional states) and eudaimonic well-being (e.g., personal growth, purpose in life, autonomy) jointly contribute to, and are influenced by, the challenges NEETs encounter. Notably, existing research on psychological variables in this context has largely employed descriptive analyses, lacking in-depth inferential approaches that could shed light on the underlying mechanisms and determinants of well-being. Furthermore, limited attention has been paid to NEETs' own subjective perspectives on both their current life satisfaction and their future aspirations. To bridge these gaps, this research sets out two complementary objectives, which are addressed through two distinct studies:

- Study 1. Investigating the determinants of life satisfaction in NEET individuals from a hedonic well-being perspective, considering the socio-demographic, psychological, and contextual factors that shape their current perceptions of happiness and emotional states. This includes moving beyond descriptive analyses toward more robust inferential methods to elucidate the factors that significantly impact NEETs' life satisfaction.
- Study 2. Examining NEETs' aspirations for the future from an eudaimonic well-being perspective, we will focus on how dimensions of personal growth, purpose in life, and autonomy inform their long-term goals and life trajectories. By integrating present and future well-being dimensions, this work offers a more comprehensive view of NEETs' subjective experiences, emphasising the interplay between immediate psychological needs and longer-term developmental aims. The insights

gained aim to inform evidence-based policies and interventions tailored to the diverse profiles of NEET individuals, ultimately promoting their social inclusion and facilitating sustainable re-engagement with education and employment.

2. DATA AND METHODOLOGY

The data for this study were collected through a dedicated survey developed by the authors as part of the EEA and Norway Grants Fund for Youth Employment project "Tr@ck-IN - Public Employment Services Tracking Effectiveness in Supporting Rural NEETs". The survey involved six European countries - Bulgaria, Estonia, Italy, Lithuania, Portugal, and Spain. Nevertheless, this paper focuses exclusively on the Italian sample, comprising 930 participants aged 25 to 29. The questionnaire was administered using the CAWI (Computer-Assisted Web Interviewing) method. The initial sample was recruited with assistance from the Public Employment Services, which shared the survey link with registered individuals belonging to the target population. The questionnaire was also disseminated via social media and influencers, employing a snowball technique to increase the sample size. As a result, the final sample – while slightly female-dominated – includes respondents from all Italian regions. The questionnaire covered various topics. In addition to basic socio-economic characteristics, it gathered information on social support received from Public Employment Services, self-efficacy, digital skills, life satisfaction, Trauma Symptom Checklist (TSC; a self-report measure of distress in adults resulting from traumatic experiences. It measures aspects of post-traumatic stress, considering: Depression, Dissociation, etc), and perceived discrimination. At the end, two open-ended questions asked respondents about their envisioned future five years from the time of the survey. All these scales will be properly described in the next sections.

3. STUDY 1

3.1. Objectives

The main objective of Study 1 is to examine how young people perceive their current status by investigating the determinants of their overall life satisfaction. In particular, we aim to understand the influence of various socio-demographic factors, mobility intentions, and two latent constructs – self-efficacy

and TSC (tendency to self-sabotage or related concerns) – on respondents' life satisfaction, therefore exploring their hedonic dimension.

3.2. Methods

We applied sample weights to account for the lack of initial statistical representativeness to enable correct statistical inference from the sample to the wider population. The weights were calculated based on Horwitz-Thompson estimators, which were corrected for both gender imbalance and regional distribution (Kish, 1995; Smith, 2019). This approach ensures that the final weighted sample is representative of the target population. Given that the original life satisfaction variable is ordinal, an ordered logit model was initially considered. However, some covariates violated the proportional odds assumption. Therefore, we converted the variable into a binary outcome – low satisfaction (1-3) versus high satisfaction (4-5) – and employed a binary logit model (Fabrizi & Rocca, 2024).

- Dependent Variable (Life Satisfaction). Respondents were asked to rate their overall life satisfaction on a scale from 1 ("not at all") to 5 ("fully satisfied"). For the analysis, this ordinal measure was recoded into a binary variable: 0 for levels 1-3 and 1 for levels 4-5.
- Independent Variables. We considered a set of socio-economic and demographic characteristics (gender, education level, geographical area, degree of urbanisation, reason for NEET status) and two additional components of interest:
 - o Mobility Intention. Propensity to move within the country or abroad for employment.
 - Latent Constructs. Self-efficacy and TSC were measured using multi-item scales, each strongly internally correlated (Cronbach's alpha of 0.9175 for self-efficacy and 0.8556 for TSC). As per common practice (Goodman, 2002; Kline, 2005; Baum, 2016), we used latent class analysis to obtain continuous latent variables, which we then included in the models.

3.3. Analysis and results

We ran two specifications:

- Model 1: Included only socio-demographic variables and mobility propensity.
- Model 2: Two latent constructs for self-efficacy and TSC were added to Model 1.

All analyses were performed using the Gsem command in Stata, applying sample weights. As a robustness check, we also ran the models without weights, obtaining virtually identical results. The covariates considered in this analysis are described in the following Table 1.

Variable name	Description	Code			
Gender (ref. male)	dummy variable	1 female, 0 male			
Types of NEET (ref. Health, voluntary worker, discouraged, other)					
Caregiver	dummy variable	1 if caregiver			
Unemployed	dummy variable	1 if unemployed			
Level of education (ref. low)	dummy variable	1 if NEET for health reasons			
Medium (ISCED 3-4)	dummy variable	1 if NEET because discouraged			
High (ISCED 5-8)					
Geographical area of residence (ref. South and isles)	dummy variable	1 if ISCED 3-4			
North	dummy variable	1 if ISCED 5-8			
Centre					
Degree of urbanisation (ref. Urban)	dummy variable	1 if lives in the North			
Intention to move to find a job	dummy variable	1 if lives in the Center			
Within the country	dummy variable	1 if lives in a rural area			
Abroad					
Self efficacy construct	Categorical variable	0 totally disagree – 5 totally agree			
TSC construct	Categorical variable	0 totally disagree – 5 totally agree			

 TABLE 1. – Predictors of life satisfaction

(continue)

Variable name	Description	Code	
Self efficacy construct	Continuous variable	 Items included, measured on a scale from 1 (totally disagree) to 5 (totally agree): 1. I can always solve complex problems if I try hard enough 2. If someone objects to me, I can find the means and ways to achieve what I want 3. It's easy for me to stick around and achieve my goals 4. I am convinced that I can effectively cope with unexpected events 5. Due to my ingenuity, I can behave in unforeseen situations 6. When faced with difficulties, I can remain calm, because I can count on my abilities to cope 7. When I run into a problem, I can usually find a solution 8. I can usually deal with everything that happens 	
TSC construct	Continuous variable	Items included, measured on a scale from 1 (never) to 5 (always): I'm afraid of failure I don't trust the system I feel inferior to the others I feel guilty I forget what I have to do I feel like I can't find a job I procrastinate important decisions and tasks	

* The coefficient is significant at the 0.10 level; ** The coefficient is significant at the 0.05 level; *** The coefficient is significant at the 0.01 level.

They include the respondents' socio-economic characteristics, such as gender, level of education, NUTS1 area of residence, degree of urbanisation, and the specific reason for being a NEET. Besides, this, some variables indicating their approach to life were considered. In particular, we included two variables indicating the individuals' propensity to move within the country or abroad to find a job and two latent constructs measuring the individuals' self-efficacy and TSC items, as shown in Table 2. These two constructs are continuous latent variables obtained through latent class analysis (see Goodman 2002) and showed an acceptable correlation (-0.2498). A regression approach confirmed that higher values of the latent construct corresponded to high levels of perceived self-efficacy and high levels of TSC, respectively (Kline 2005; Baum 2016) and indicated a high goodness of fit (R-squared 0.98 and 0.99, respectively). Table 2 (below) presents the logit model estimates for overall life satisfaction:

Variable name	Model 1	Model 2
Gender (ref. male)	0.8491***	0.9988***
Types of NEET (ref. Health, voluntary w	orker, discouraged, ot	her)
Caregiver	0.912***	1.054**
Unemployed	1.246***	1.364***
Level of education (ref. low)		
Medium (ISCED 3-4)	0.715**	0.704
High (ISCED 5-8)	0.591	0.855*
Geographical area of residence (ref. Sout	h and isles)	
North	-0.916***	-0.932***
Centre	-1.238***	-1.047***
Degree of urbanisation (ref. Urban)	0.185	0.549
Intention to move to find a job		
Within the country	-0.299	-0.303
Abroad	-0.535	-0.871**
Self efficacy construct	-	0.769***
TSC construct	-	-0.887***
Constant	-1.4896***	-1.581**
Pseudo R-squared	0.1151	0.2472
Wald chi	42.34***	62.16***
N	930	930

TABLE 2. – *The logit model*

Life satisfaction levels tend to be higher among women and caregivers. Moreover, being unemployed is associated with significantly greater satisfaction compared to other NEET status categories. While residence in Southern Italy cor-

relates with higher life satisfaction, the degree of urbanisation does not appear to exert any notable influence. The analysis also indicates that a stronger inclination to relocate for work is linked to lower life satisfaction, although the statistical significance is relatively modest; this suggests that emigration remains more of a necessity arising from limited local opportunities than a deliberate choice to broaden one's horizons. Finally, regarding the two latent constructs, greater self-efficacy corresponds to higher life satisfaction, whereas higher TSC scores are significantly associated with lower satisfaction. Adding self-efficacy and TSC (Model 2) substantially increases the model's explanatory power, as evidenced by the jump in the Pseudo R-squared from 0.1151 to 0.2472. This indicates that psychological factors, particularly self-efficacy and TSC, play a significant role in shaping young people's life satisfaction.

4. STUDY 2

4.1. *Objectives*

The primary aim of Study 2 is to explore how young people envision their future status, with a particular focus on their perceptions of where they see themselves five years from now, examining their eudaimonic dimension. To achieve this goal, the study adopts two distinct analytical approaches:

- Text mining of the unstructured responses to the open-ended survey question about future outlook.
- A statistical assessment of the determinants of the perceived future status, applying sample weights to ensure the representativeness of the results.

4.2. Methods

The contemporary information landscape is defined by massive volumes of unstructured data-text-heavy content derived from news articles, social media, Twitter feeds, formal documents, and beyond.

Text mining, also referred to as text data mining, involves transforming such unstructured text into a structured format, from which meaningful patterns and insights can be extracted (Jung & Lee, 2020). Building on the work of Lee et al. (2023), text mining is recognised as an interdisciplinary field that merges data mining, computational statistics, computer science, and linguistics. It finds applications across various domains, including bioinformatics, business, marketing, education, life sciences, and healthcare. Earlier methods often relied on counting specific keywords (Carley, 1993), risking oversimplification when similar sets of words conveyed different meanings. To address this, more advanced methods – such as semantic networks and language network models – examine word co-occurrences, revealing patterns of conceptual proximity. Although the terms text mining and text analytics are sometimes used interchangeably, a subtle distinction may be made:

- Text mining typically employs machine learning, statistical methods, and linguistics to discover patterns in unstructured data.
- Text analytics focuses on organising this data into a structured format and extracting actionable insights.

As technical tools and programming packages have advanced, text mining has become increasingly accessible.

Considering how text mining framework works in theory, it is important to specify that since the Natural Language Processing (NLP) can be used to understand the structure and meaning of human language by analysing characteristics such as syntax, semantics, pragmatics, and morphology, text mining uses NLP to transform the unstructured text in documents and databases into normalised, structured data suitable for further analysis. This process includes the following four phases (Bochkay et al., 2023; Chowdhury & Alzarrad, 2023; Kumar et al., 2021): pre-processing, which converts text into a useful form for text mining tasks (tokenisation, normalisation, stemming and lemmatisation); transformation, which involves document representation by the number of occurrences in the text; feature selection, which selects the most relevant features from the available variables; Data Mining, which includes classification, clustering, regression, association rule mining, also considering knowledge networks using words as nodes. Since the survey was conducted in Italy, a preliminary Visual Basic for Applications (VBA) script was used to translate and standardise the free-text responses into English. The text-mining approach thus allows for a deeper understanding of young people's aspirations, concerns, and expectations regarding their future over the next five years. To maintain consistency with Study 1 and ensure accurate inference, sample weights were again applied. Weights were calculated according to the Horwitz-Thompson estimators, correcting for gender imbalances and regional representativeness (Kish, 1995; Smith, 2019). This approach guarantees that the findings can be generalised to the broader population.

4.3. Analysis and results

4.3.1. Text mining analysis

Below, we present the text mining analyses along with the relevant figures and commentary. Figure 1 shows the most frequent words that catalysed the answers given by young NEETs interviewed to the question about the perception of respondents' future in five years.

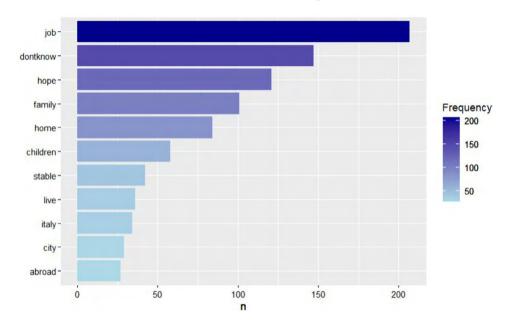


FIGURE 1. – Bar Plot: Most Frequent Words

We also explore the contents of our corpus in a different way using the more intuitive WordCloud, in which the size of each word indicates its frequency, as shown in Figure 2. This figure indicates that "job", "I don't know", "hope", "family", "home", and "children" represent the most cited responses.

FIGURE 2. – Wordcloud



4.3.2. Sentiment Analysis

The topic of sentiment analysis provides a way to understand the attitudes and opinions expressed in the text. In more detail, sentiment analysis is the process of gathering and analysing people's opinions, thoughts, and impressions regarding various topics, products, subjects, and services. It identifies and extracts subjective information from the text using natural language processing. According to M.g.younis (2015) it might be investigated at several levels (e.g. document, sentence, phrase, and aspect levels) and considering different approaches (lexicon-based approach, machine learning method; in addition to these latter approaches Wankhade et al., 2022 mentioned the hybrid approach). Kiritchenko et al. (2014) highligted that the lexico-based approach considers the collection of tokens where each of them is assigned a predefined score, which indicates the text's neutral, positive and negative nature. The lexicon-based approach includes among others, corpus-based and statistical outlooks, two similar ways to evaluate the co-occurrence patterns. Fig. 3 shows positive and negative words in defined sections of the entire dataset. The prevalence of propensity for "stability", "satisfaction" and "happiness" is well highlighted in the graph.

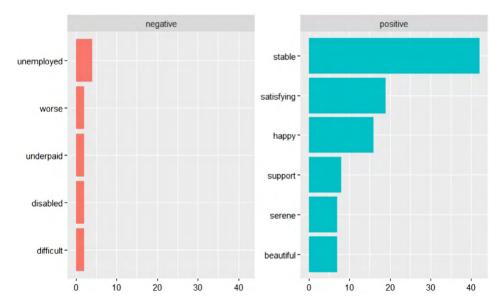


FIGURE 3. – Bar plots for contribution to positive and negative sentiment

Comparing the frequency of words separately by the rural and non-rural clusters, Figure 4. shows that words close to the red line have similar frequencies in both text sets, such as the already mendioned "job", "family", "home" and "children". Different words that are far from the red line represent words that appear more in the rural cluster than the non-rural cluster – and viceversa. Therefore, words like "stable" and "city" seem to catalyse the Neets' non-rural responses, while "term", "Italy", "country" and "abroad" predominantly appear in responses from Neets in rural areas.

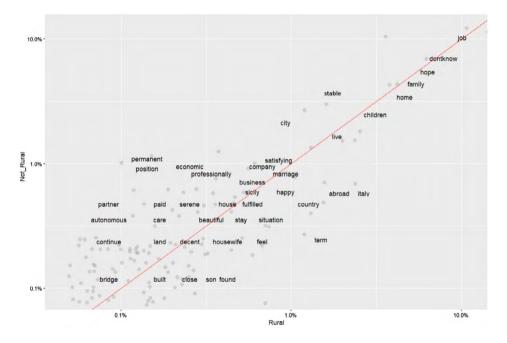


FIGURE 4. – Frequency of words by Rural and non-Rural clusters

In the same way, comparing the frequency of words by gender, Figure 5 shows the prevalence of words such as "children", "family", and "support" for women, while "skills", "Northern" and "Italy" appear to be prevalent for men. In addition, a word like the already mentioned "I don't know" seems to catalyse the Men's responses, thus suggesting a greater propensity of men towards the uncertainty of the future, compared to the women

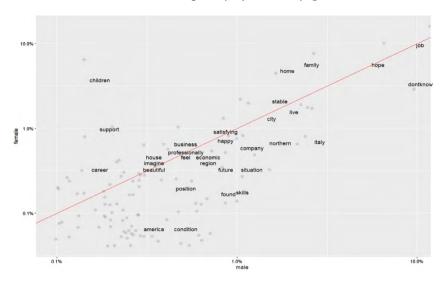


FIGURE 5. – Frequency of words by gender

Since the odds ratio (OR) is a measure of association that compares the odds of an event between two different groups (OR = 2.50 could be interpreted as 2.5 times the odds of the second group), Figure n. 6 shows which words are more or less likely to come from each rural and not rural clusters, using the log version of the OR (lo odds ratio rural vs non-rural). The bar plot shows that words like *term*, *country* and *region* are more likely to come from rural cluster while "*economic*", "*professionality*" and "*city*" are the corresponding more likely to come from non-rural cluster.

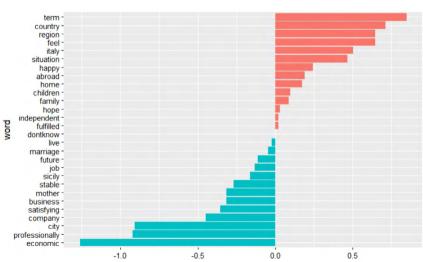


FIGURE 6. – Log odds ratio Rural vs non-Rural

Many interesting text analyses are based on the relationships between more words. Network analysis can be used as a more comprehensive approach to examine these relationships. In general, it is possible to study (1) pairs of two consecutive words (called bigrams), considering whether to examine which words tend to follow others immediately or (2) pairs of words that occur together in the same response, even if not strictly consecutive, as shown in Figure 7. The nodes that appear most clearly in the graph suggest evident expectations linked to the hope of finding a stable job that allows independence and the possibility of having a family.

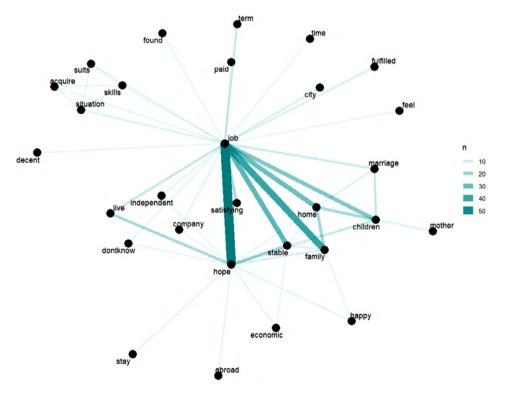


FIGURE 7. – *Network analysis*

A different way to model text in the framework refers to the usage of a clustering algorithm. Many interesting text analyses are based on the relationships between words, whether examining which words tend to follow others immediately or which tend to co-occur within the same documents. This research investigates the psychological and socio-economic dimensions of well-being among NEETs in Italy, offering a dual focus on their present life satisfaction (hedonic well-being) and future aspirations (eudaimonic well-being). The findings from Study 1 reveal that life satisfaction is shaped not only by socio-demographic factors but also by deeper psychological constructs, specifically self-efficacy and TSC scores. While higher self-efficacy corresponds to greater life satisfaction, elevated TSC scores - indicative of emotional and psychological distress - are strongly associated with lower satisfaction. These results highlight the complex interplay between personal resources (e.g., resilience) and psychological vulnerabilities (e.g., trauma-related symptoms). Socio-demographic patterns reinforce the idea that life satisfaction is not uniformly distributed among NEETs. Women and caregivers report higher levels of satisfaction, which may reflect the buffering effects of meaningful caregiving roles or social support structures. In contrast, those in Northern and Central Italy show lower life satisfaction compared to their Southern counterparts. This finding challenges conventional assumptions about economic prosperity correlating with well-being, suggesting that cultural, familial, and social cohesion in the South may play a protective role. In Study 2, the exploration of future aspirations highlights the centrality of employment, stability, and social connection in shaping NEETs' long-term outlooks. The prominence of words such as job, hope, and family in text analyses demonstrates the aspirational yet constrained nature of NEETs' perspectives. Gendered and geographical differences in aspirations underscore the divergent challenges faced by rural versus urban NEETs, as well as men versus women. While rural NEETs emphasise roles tied to traditional values and local contexts, urban NEETs focus more on professional ambitions and mobility.

In study 1, the relationship between self-efficacy and life satisfaction aligns with established theories of psychological empowerment, which posit that individuals who believe in their ability to overcome challenges and achieve goals experience greater well-being (Flores & Maquiling, 2024). This finding underscores the importance of fostering a sense of competence and agency among NEETs, particularly through tailored interventions in PES. Conversely, the negative association between TSC scores and life satisfaction highlights the long-term impact of unresolved psychological distress, which may manifest as anxiety, depression, or trauma-related symptoms. These findings suggest that NEETs' struggles are not merely economic but deeply rooted in psychological and emotional vulnerabilities. The interaction between psychological constructs and socio-demographic factors also warrants attention. For example, the higher life satisfaction reported by women and caregivers may reflect the protective effects of social roles that provide purpose and structure. However, this does not negate the systemic barriers they face, including limited opportunities for professional development due to caregiving responsibilities or traditional gender norms. This duality underscores the need for interventions that balance psychological support with structural reforms.

The unexpected finding that NEETs in Southern Italy report higher life satisfaction despite facing greater economic challenges highlights the role of cultural and social factors. Southern Italy's strong emphasis on familial bonds and community networks may provide a psychological safety net, offsetting the adverse effects of unemployment or educational disengagement (Sonke et al., 2024; Yu et al., 2019). This finding aligns with the concept of socio-emotional wealth, which posits that non-material resources such as relationships and cultural identity can enhance well-being (Mertika et al., 2020). However, these protective factors may not be sufficient in the long term. The economic stagnation and lack of opportunities in the South remain significant barriers to re-engagement with education and employment. The persistence of these structural challenges underscores the need for targeted regional policies that leverage social cohesion while addressing economic deficiencies (Mussida & Sciulli, 2018).

The qualitative insights from Study 2 reveal a stark contrast between rural and urban NEETs in their future aspirations. Urban NEETs frequently highlight stability and traditional roles, showing (1) a propensity to remain in their cities and (2) an aspiration centered on permanent professional growth, probably motivated by the broader range of opportunities and exposure to diverse career pathways. In contrast, rural NEETs express their availability for mobility in their region, but also in Italy and abroad, reflecting the limited opportunities in these regions. Since the analysis performed in Study 1 also reveals that a higher propensity to leave the place where the respondents live to find a job is associated with a lower level of life satisfaction, emigration still appears to be a choice required by the scarcity of local opportunities, rather than a voluntary intention of leaving and/or experiencing new situations. These differences suggest that rural NEETs need benefit from localised interventions, such as investments in rural infrastructure and community-based projects that expand opportunities without forcing migration (Ellena et al., 2021).

Gendered differences in aspirations further complicate the narrative. Women's emphasis on family, caregiving, and social support reflects traditional expectations but also highlights their resilience in navigating structural barriers. Men's focus on skills and mobility suggests a more direct engagement with labour market dynamics, though it also points to the pressures of economic expectations (Ellena et al., 2023), which however also reveal uncertainty about their future. These patterns underscore the need for gender-sensitive policies that address the unique challenges and strengths of males and females in NEET populations.

6. LIMITATIONS AND INDICATION FOR FUTURE RESEARCH

While this study provides valuable insights, several limitations must be addressed. The reliance on self-reported measures introduces potential bias, and the focus on the Italian context limits the generalizability of findings. Future research should explore longitudinal designs to capture changes in NEETs' well-being over time and expand to cross-cultural comparisons to identify universal versus context-specific trends. Additionally, qualitative methods such as interviews or focus groups could complement text-mining approaches, providing a richer understanding of NEETs' lived experiences. Finally, investigating the role of digital skills and online networks in shaping NEETs' aspirations could offer new avenues for intervention in an increasingly digitalised world.

7. CONCLUSIONS

This study sheds light on the complex and intertwined challenges faced by NEETs in Italy, offering valuable insights into their well-being and aspirations. To translate these insights into action, targeted policies must prioritise holistic approaches that address psychological, structural, and social barriers. Integrating mental health support into PES is essential, with an emphasis on fostering resilience and offering tailored guidance to support individuals in navigating their unique challenges. Gender-sensitive strategies, including accessible childcare and flexible work arrangements, can mitigate the constraints disproportionately affecting women, while skill-building and mobility programs can better align with the needs and ambitions of men. Furthermore, localised strategies that consider rural and urban disparities can ensure that interventions are context-specific and inclusive, bridging gaps in education, infrastructure, and employment opportunities. By aligning policies with the strengths and aspirations of NEETs, rather than merely focusing on their limitations, it is possible to create pathways that empower individuals to re-engage with education, employment, and society. This shift toward a more person-centered and context-sensitive approach is critical for fostering sustainable development and long-term inclusion.

ACKNOWLEDGEMENT

This work was developed in the context of the European Rural Youth Observatory (EURYO). EURYO is an international research-led association committed with moving rural young people forward, through knowledge and collaboration between multiple stakeholders (www.euryo.org).

REFERENCES

Alfieri S. - Sironi E. - Marta E. - Rosina A. - Marzana D. (2015). Young Italian NEETs (not in employment, education, or training) and the influence of their family background. *Europe's Journal of Psychology*, 11(2), 311.

Amendola S. (2022). Trends in rates of neet (not in education, employment, or training) subgroups among youth aged 15 to 24 in Italy, 2004 - 2019. *Journal of Public Health*, 30(9), 2221-2229. Doi: https://doi.org/10.1007/s10389-021-01484-3

Baum C.F. (2016). An Introduction to Stata Programming. Second Edition. Stata Press.

Bochkay K. - Brown S.V. - Leone A.J. - Tucker J.W. (2023). Textual Analysis in Accounting: What's Next?*. *Contemporary Accounting Research*, **40**(2), 765-805. Doi: https://doi.org/10.1111/1911-3846.12825

Bolíbar M. - Verd J.M. - Barranco O. (2019). The downward spiral of youth unemployment: An approach considering social networks and family background. Work. *Employment and Society*, **33**(3), 401-421.

Buckman J. - Stott J. - Main N. - Antonie D. - Singh S. - Naqvi S. ... Pilling S. (2021). Understanding the psychological therapy treatment outcomes for young adults who are not in education, employment, or training (neet), moderators of outcomes, and what might be done to improve them. *Psychological Medicine*, **53**(7), 2808-2819. Doi: https://doi.org/10.1017/s0033291721004773

Carley K. (1993). Coding Choices for Textual Analysis: A Comparison of Content Analysis and Map Analysis. *Sociological Methodology*, **23**, 75. Doi: https://doi.org/10.2307/271007

Chowdhury S. - Alzarrad A. (2023). Applications of Text Mining in the Transportation Infrastructure Sector: A Review. *Information*, **14**(4), 201. Doi: https://doi. org/10.3390/info14040201

De Luca G. - Mazzocchi P. - Quintano C. - Rocca A. (2019). Italian NEETs in 2005-2016: have the recent labour market reforms produced any effect?. *CESifo Economic Studies*, **65**(2), 154-176.

Ellena A.M. - Marta E. - Simões F. - Fernandes-Jesus M. - Petrescu C. (2021). Soft skills and psychological well-being: A study on Italian rural and urban NEETs. *Calitatea Vieții*, **32**(4), 352-370.

Ellena A.M. - Marzana D. - Pozzi M. (2024). Strategies for engaging and outreaching neets in italy: insights from active labour policies. *Politics and Governance*, **12**. Doi: https://doi.org/10.17645/pag.7499

Ellena A.M. - Marzana D. - Marta E. - Rosina A. - Simões F. (2023). NEETs-One Social Group, Many Profiles: a Proposed Descriptive Profiling of Psychosocial Dimensions. *Rivista internazionale di scienze sociali*, **3**, 353-384.

Fabrizi E. - Rocca A. (2024). The Scarring Effect of a Prolonged School-to-Work

Transition on Young People's Future Careers and the Influence of Family Background. *Ital Econ J.* Doi: https://doi.org/10.1007/s40797-024-00302-5

Ferreira T. - Ellena A.M. - Jonsson F. - Barbosa B. - Uyan-Semerci P. - Tuna E. ... Fernandes-Jesus M. (2024). Building bridges: Community-based projects for participation and social inclusion of rural NEETs. *NEETs in European rural areas*, 17-33.

Flores J.M.N. - Maquiling R.R. (2024). Work Engagement as A Function of Pyschological Empowerment, Self-Efficacy and Job Satisfaction among Financial Managers: A Structural Equation Modelling Approach. *International Journal of Multidisciplinary: Applied Business and Education Research*, **5**(8), 3206-3230.

Gaspani F. (2018). Young adults neet and everyday life: time management and temporal subjectivities. *Young*, **27**(1), 69-88. Doi: https://doi.org/10.1177/1103308818761424

Goodman L.A. (2002). Latent class analysis: the empirical study of latent types, latent variables, and latent structures. In Hagenaars J.A. - McCutcheon A.L. (eds.). *Applied Latent Class Analysis*. Cambridge University Press, Cambridge, pp. 3-55.

ISTAT (2024). Rapporto annuale: la situazione del Paese nel 2023 [Annual report: the state of the country in 2023].

Jung H. - Lee B.G. (2020). Research trends in text mining: Semantic network and main path analysis of selected journals. *Expert Systems with Applications*, **162**, 113851. Doi: https://doi.org/10.1016/j.eswa.2020.113851

Kiritchenko S. - Zhu X. - Mohammad S.M. (2014). Sentiment Analysis of Short Informal Texts. Journal of Artificial Intelligence Research, **50**, 723-762. Doi: https://doi.org/10.1613/jair.4272

Kish L. (1995). Survey Sampling. Wiley.

Kline R.B. (2005). *Principles and Practice of Structural Equation Modeling*. Guilford Press.

Kumar S. - Kar A.K. - Ilavarasan P.V. (2021). Applications of text mining in services management: A systematic literature review. *International Journal of Information Management Data Insights*, **1**(1), 100008. Doi: https://doi.org/10.1016/j. jjimei.2021.100008

Lee J.Y. - Choi J.W. - Choi J.-H. - Lee B.-H. (2023). Text-mining analysis using national R&D project data of South Korea to investigate innovation in graphene environment technology. *International Journal of Innovation Studies*, **7**(1), 87-99. Doi: https://doi.org/10.1016/j.ijis.2022.09.005

M.g.younis E. (2015). Sentiment Analysis and Text Mining for Social Media Microblogs using Open Source Tools: An Empirical Study. *International Journal of Computer Applications*, **112**(5), 44-48. https://doi.org/10.5120/19665-1366

Marzana D. - Ellena A.M. - Martinez-Damia S. - Ribeiro A.S. - Roque I. - Sousa J.C. ... Prieto-Flores Ò. (2023). Public Employment Services and Strategic Action towards Rural NEETs in Mediterranean Europe. *Social Sciences*, **13**(1), 7. Doi: https:// doi.org/10.3390/socsci13010007 Mazzocchi P. - Agahi O. - Beilmann M. - Bettencourt L. - Brazienė R. - Edisherashvili N. ... Yurukov B. (2024). Subjective well-being of NEETs and employability: A study of non-urban youths in Spain, Italy, and Portugal. *Politics and Governance*, 12. Doi: https://doi.org/10.17645/pag.7415

Mertika A. - Mitskidou P. - Stalikas A. (2020). "Positive Relationships" and their impact on well-being: A review of current literature. *Psychology: The Journal of the Hellenic Psychological Society*, **25**(1), 115-127.

Mussida C. - Baussola M. - Malo M. - Cueto B. (2021). Being a neet before and after the great recession: persistence by gender in southern europe. *Socio-Economic Review*, **21**(1), 319-339. Doi: https://doi.org/10.1093/ser/mwab043

Odoardi I. - Liberatore A. (2021). Youth unemployment: a serious problem for young italians neet and a comparison with the social exclusion condition. *Journal of Urban and Regional Analysis*, **13**(1). Doi: https://doi.org/10.37043/jura.2021.13.1.11

O'Higgins N. - Brockie K. (2024). The youth guarantee, vulnerability, and social exclusion among neets in southern europe. *Politics and Governance*, **12**. Doi: https://doi.org/10.17645/pag.7469

Parola A. - Marcionetti J. - Sica L. - Donsì L. (2023). The effects of a non-adaptive school-to-work transition on transition to adulthood, time perspective and internalising and externalising problems. *Current Psychology*, **42**(29), 25855-25869. Doi: https://doi.org/10.1007/s12144-022-03605-x

Petrescu C. - Ellena A.M. - Fernandes-Jesus M. - Marta E. (2022). Using evidence in policies addressing rural NEETs: Common patterns and differences in various EU countries. *Youth & Society*, **54**(2 suppl), 69S-88S.

Quintano C. - Mazzocchi P. - Rocca A. (2018). The determinants of italian neets and the effects of the economic crisis. *Genus*, **74**(1). Doi: https://doi.org/10.1186/s41118-018-0031-0

Simões F. (2024). Rural neets' hope across the covid-19 pandemic: a bioecological longitudinal mapping. *Journal of Community & Applied Social Psychology*, **34**(4). Doi: https://doi.org/10.1002/casp.2860

Simões F. - Erdoğan E. - Muratović M. - Sik D. (2021a). Scrutinising the exceptionalism of young rural neets: a bibliometric review. *Youth & Society*, **54**(2_suppl), 8S-28S. Doi: https://doi.org/10.1177/0044118x211040534

Simões F. - Marta E. - Marzana D. - Alfieri S. - Pozzi M. (2021b). An analysis of social relationships' quality associations with hope among young Italians: the role of NEET status. *Journal of Applied Youth Studies*, **4**(2), 169-184.

Smith T.W. (2019). Survey Weights in Cross-National Surveys, *Cross-Cultural Survey Guidelines*.

Smoter M. (2021). Outreach practices of public employment services targeted at neet youth in poland. *Youth & Society*, **54**(2_suppl), 89S-108S. Doi: https://doi.org/10.1177/0044118x211058224

Sonke J. - Pesata V. - Morgan-Daniel J. - Rodriguez A. - Davidson Carroll G. - Burch S. ... Karim H. (2024). Relationships between arts participation, social cohesion, and well-being: An integrative review and conceptual model. medRxiv, 2024-05.

Wankhade M. - Rao A.C.S. - Kulkarni C. (2022). A survey on sentiment analysis methods, applications, and challenges. *Artificial Intelligence Review*, **55**(7), 5731-5780. Doi: https://doi.org/10.1007/s10462-022-10144-1

Youmans A. - Kutsyuruba B. - Butler A. - Godden L. (2023). Marginalised youth and their journey to work: A review of the literature. *Education*, **3**(1-2023), 61-82.

Yu R. - Cheung O. - Leung J. - Tong C. - Lau K. - Cheung J. - Woo J. (2019). Is neighbourhood social cohesion associated with subjective well-being for older Chinese people? The neighbourhood social cohesion study. *BMJ open*, **9**(5), e023332.