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## Abstract

Our study explored how self-efficacy perceptions are associated with Perceived Barriers (PB), meaning beliefs about constraints on current/future vocational development, and Professional Expectations (PE) among rural, under-qualified youths Not in Employment, nor in Education or Training (NEET). We also analyzed how the connections between these factors varied across gender and age groups. One-hundred and eighty eight NEETs participated in this study (58.20% female;  $M = 23.05$ ;  $SD = 1.96$ ). Through linear regression analysis using PROCESS macros we found that higher self-efficacy was associated with stronger PB, after accounting for the effects of training offers and income. Moreover, men showing stronger self-efficacy also displayed stronger PB, while men depicting weaker self-efficacy presented weaker PB, compared to women in similar conditions. Being offered more training opportunities resulted in stronger perceptions of professional barriers for these NEETs. Thus, rural, under-qualified NEETs require person-centered approaches from employment services, to support their transition to employment/training.

*Keywords:* NEETs; rurality; self-efficacy; perceived barriers; professional expectations.

NEET is the acronym for youths who are not employed, nor in education or training (Furlong, 2006) for four or more weeks (EUROSTAT, 2019). The official use of the term NEET was introduced in 1999, in the United Kingdom, as a response to the fact that the legislation did not acknowledge youth unemployment for those aged between 16 and 18 years old. Currently, the age of those falling into the NEET group can range from 15 to 34 years old (EUROSTAT, 2019).

NEET has become a label to designate a very heterogeneous group, with different characteristics, needs and experiences (Eurofound, 2012; Furlong, 2006). Scholars have worked on a typology of five NEET subgroups, to better depict their heterogeneity: *unemployed NEETs*, including long-term and short-term unemployed; *unavailable NEETs*, including those youths who are limited in their professional or educational/training choices due to family duties (e.g. young care givers); *unoccupied NEETs*, who are not actively seeking work, but who are not restricted by other obligations or impairments in doing so; *NEETs seeking opportunities*, including those actively seeking a job or education/training, but who are waiting for offers that match their competences and status; and *voluntary NEETs*, involving those who are in this situation of their own will, because they are traveling or engaged in activities such as voluntary work (Eurofound, 2012). Unemployed and unoccupied NEETs constitute the largest share of the group (EUROSTAT, 2019). This means that a significant number of NEETs have fewer chances of accumulating educational and social resources for professional development compared to youths in general (Bynner & Parsons, 2002).

The experience of being NEETs is particularly challenging for one's overall sense of competence, usually defined as self-efficacy (Bandura, 1997). Longer or more recurrent unemployment or idleness spells require extra demands when facing obstacles (Bandura, 1997; Mortimer, Kim, Staff, & Vuolo, 2016), multiply the chances of

developing negative beliefs about professional development (Bandura, 1997) and increase the likelihood of worse professional experiences (Bynner & Parsons, 2002) or future unemployment (The Prince's Trust, 2007).

NEETs' professional development prospects in rural areas are even worse. In the countryside, the likelihood of becoming NEET is higher, across most European countries (EUROSTAT, 2019). Moreover, youths in these areas have a limited range of training and professional offers (De Hoyos & Green, 2011) and are more often exposed to risks of poverty (Papadakis & Kyvelou, 2017), which is partly justified by the work market structure and limited mobility (Farrugia, 2016; Simões, Rocha, & Mateus, 2019).

The challenges faced by rural NEETs have implications for their communities as well. In general, higher rural NEETs' rates represent a waste of human potential for local (and national) growth (Alfieri, Rosina, Sironi, Marta & Manzana, 2015). Besides this, being NEET in the countryside increases the chances of youth mobility toward urban areas, further threatening weak local economies (Farrugia, 2016). Moreover, the higher rates of rural NEETs in many European countries may also indicate a struggle of communities to match local opportunities and resources with youths' professional development expectations (Simões, 2018).

Bearing that in mind, our study aims at understanding rural, under-qualified NEETs professional development perspectives. Specifically, we intend to understand how these NEETs self-efficacy perceptions are associated with their Perceived Barriers (PB) and Professional Expectations (PE), accounting for the influence socioeconomic factors. We also intend to explore how the connections between these variables may differ across gender and age groups. To demonstrate how the most disadvantaged rural NEETs shape their present and future professional development perspectives, our study

took place in The Azores, a nine-island archipelago struggling with the highest rate of NEETs across Portuguese regions (Governo Regional dos Açores, 2018).

### **The outliers: rural, under-qualified NEETs**

NEETs' heterogeneity is not entirely captured by age limits or conceptual typologies. Successive international reports (e.g. EUROSTAT, 2017; 2019) indicate that place of origin is a major differentiating factor in NEETs' perspectives and trajectories. In 2018, the proportion of NEETs in Europe was higher in rural areas (18.30%) compared to cities (15.10%). This pattern was evident in 16 out of 28 countries, including Portugal. While this difference has been systematic since, at least 2016, there has also been a consistent decline in the number of NEETs. This trend is more intense in rural areas (-2.10%) compared to urban areas (-1.50%) (EUROSTAT, 2017; 2019). However, this evolution might be deceptive, as it may well reflect NEETs mobility between the countryside and cities, thus contributing to a more favorable perspective on the remainder.

The strongest chance of becoming NEET in rural areas is determined by a number of interdependent factors, which are documented in parallel literature about rural youth living conditions. First, rural youth deals with professional development barriers, due to a limited offer of training opportunities, as well as a restricted work market in rural areas (De Hoyos & Green, 2011). In turn, the available jobs, most of them in the primary sector, impose a cultural discrepancy on these youths, including rural NEETs, because these activities are not aligned with dominant, urban lifestyle representations (Simões, 2018). However, these youths also display more unsuccessful academic trajectories, meaning that afterwards they will feel pressured to accept less qualified

jobs, including those that underline the countryside lifestyle (Sadler, Akister, & Burch, 2014).

Second, rural youths, including the more disadvantaged rural NEETs face mobility barriers. These barriers are brought forward by current meritocracy ideals involving educational and professional choices (Corbett & Forsey, 2017). The idea that success is strictly associated with tertiary education does not match the rural material and emotional conditions, where meritocracy principles are difficult to fulfill (Farrugia, 2016). Thus, the more academic-minded youths tend to abandon rural communities in search of academic and professional opportunities in urban areas (Simões et al., 2019). This selective migration leads to an even greater degradation of rural communities, with local schools providing less training/learning opportunities to youths displaying greater vulnerabilities, despite it being more likely they will remain (Farrugia, 2016).

### **Self-efficacy and perceived barriers among rural NEETs**

It remains uncertain if and how rural NEETs feel allowed to plan their professional present and future, in the face of so many challenging circumstances. Even a rough sketch of the present and future conditions involves reasoning about self-reliance on personal capabilities and the prediction of reasonable outcomes for one's actions. Thus, these youths' self-efficacy and present PB are at stake when reasoning about their professional development.

According to Bandura (1997), self-efficacy can be described as the belief in one's capabilities to organize and execute the courses of action required to produce given attainments. In the transition to adulthood, self-efficacy perspectives show intricate connections to PB. PB are individual beliefs about constraints on current or future vocational development. These barriers may range from external and uncontrollable

factors (e.g. fate) to personal and controllable factors (e.g. effort attribution), and do not necessarily stem from reality or information, but may have an impact on career decision-making. They, therefore, differ from objective barriers, such as actual educational level or income (Lent, Brown, & Hackett 2000).

The connections between self-efficacy and PB are mixed across groups of vulnerable youths and young adults. While higher self-efficacy rates have been associated with stronger anticipation of barriers among vulnerable groups, such as ethnically diverse adolescents (Gushue, Clarke, Pantzer, & Scanlan, 2006), no links have been found between these variables among Hispanic young women (Rivera, Chen, Flores, Blumberg, & Ponterotto, 2007). In the case of rural NEETs, at least one study found that higher levels of self-efficacy are linked to a marginal decrease in the perception of barriers (Simões et al., 2017).

The variability in the connections between self-efficacy prospects and PB are usually explained by gender and age differences. Gender is a salient factor behind variations in levels of self-efficacy (Bandura, 1997). Men tend to feel more reliant when assessing their self-competence to undertake jobs that involve the use of authority, physical force, higher levels of responsibility and higher income (Konrad, Ritchie, Lieb, & Corrigan, 2000). Women feel more competent regarding jobs involving caring and helping others, as well as jobs which allow them greater flexibility to attend to family responsibilities, and particularly childcare (Claster & Blair, 2017). Nevertheless, when assessing their general self-efficacy, men depict more favorable prospects, which is in part due to masculine overreliance on personal abilities and skills. These findings are paralleled by research pieces consistently reporting that women acknowledge vocational barriers more strongly than men, whether the study was conducted with adolescents (Cardoso & Marques, 2008) or ethnic minorities (Holloway-Friesen, 2018).

Age may also shape the connections between self-efficacy and PB among NEETs. General self-efficacy tends to increase with age, including among vulnerable groups, such as the unemployed (Albion, Fernie, & Burton, 2005). This overall tendency contrasts with trends regarding specific forms of self-efficacy across professional groups. For instance, teacher self-efficacy follows a curvilinear evolution, with both younger and older teachers showing greater self-reliance on their teaching abilities (Klassen & Chiu, 2010). PB also evolve across the life-span. PB are more intense among young job seekers and professionals near the end of their careers, due to unmet educational expectations but also, among the elder workers, due to the failure to update required competences (Messersmith & Schulenberg, 2008).

PB are particularly stronger among younger people coming out of marginalized groups who have a lower chance of getting a job contract or of improving professional experience (Diemer et al., 2010). While NEETs in general face these challenges, younger NEETs, meaning those under 24, are affected to a greater extent by the education to work transition challenges. This group more often accumulates risks, such as inconsistent professional experiences or higher levels of precariousness compared to those NEETs aged 25 or above (Eurofound, 2012).

### **Self-efficacy and perceived expectations among rural NEETs**

Self-efficacy is also connected to PE among those entering adulthood. PE are future expectations about professional opportunities which shape their present behavior (Beal & Crockett, 2010). These cognitions are continuously adjusted, based on the feedback received from tasks in which individuals are involved. Thus, compared to other future-oriented cognitions in the professional realm, such as aspirations, PE are



reality-based and refer to the most likely professional outcome sought by an individual, while the later are driven by desire and the realm of possible options.

The variations among rural NEETs regarding self-efficacy, PE and their interplay have not been documented. Parallel literature shows, nevertheless, that these connections may be shaped by gender. More often, PE tend to be stronger among women, as a result of greater educational expectations (Mello, 2008). Some explanations for this expectation gender gap in rural areas are the employment structure, offering male-dominated jobs in agriculture (Leibert, 2016); women needing to escape narrow traditional roles which dominate rural communities (Farrugia, 2016); or greater female orientation towards education (Leibert, 2016).

The role of age in future-oriented cognitions and its connections with self-efficacy has also attracted attention from scholars. Trust in future professional outcomes generally declines across the life-span (Morgan & Robinson, 2013), with only specific dimensions of PE improving, such as accumulating occupational expertise (Froehlich, Beausaert & Segers, 2015). The chronological evolution of PE is less straightforward among vulnerable populations. These people have to face risks, such as unemployment, precariousness or mismatch between job demands and acquired competences. Thus, in general, self-efficacy to find a job decreases among older individuals facing social or vocational risks, as well as job search intensity, resulting in lower reemployment rates and speed, which can be understood as a proxy for lower PE (Wanberg, Kanfer, Hamann, & Zhang, 2016).

### **Rural NEETs' socioeconomic status**

Socioeconomic status is a measure of one's social position within a power hierarchy based on objective indicators including wealth, prestige, or access to

resources like income, professional status, and/or educational level (Diemer et al., 2010). These resources are interdependent, as greater wealth is connected to completion of university or greater levels of literacy.

Lower socioeconomic status has been linked to weaker self-efficacy perspectives and to an increased perception of barriers to personal self-efficiency reasoning (Ali, McWhirter & Chronister, 2005). In the case of rural NEETs, professional status indicators such as longer unemployment spells or not having access to job contracts are detrimental to self-efficacy perceptions (Simões et al., 2017). Furthermore, work-related expectations, such as obtaining a university degree, are not only higher, but are also more persistent among young adults with better socioeconomic backgrounds (Johnson & Reynolds, 2013). The interplay between self-efficacy, PB, PE and structural factors, such as age and gender among rural NEETs, must therefore consider contextual features related to this group's socioeconomic background.

Rural NEETs are profoundly vulnerable regarding each of the socioeconomic status indicators. Regarding professional status, and due to lower household income, many rural NEETs tend to enter the labor market earlier and to display some sort of professional experience. However, due to the dominant economic activities in the countryside, this professional experience might be seasonal or temporary, leading to precariousness (Papadakis & Kyvelou, 2017). This increases the risk of becoming a long-term NEET or of having a precarious professional trajectory. Youths that fall into unemployment have a greater chance of becoming long-term unemployed or of having chronic low income (Carcillo et al., 2015). This risk is even more obvious in rural areas, due to the inflexible structure of the labor market (Simões, 2018).

In terms of educational resources, youths living in the countryside show lower education attainment and professional qualifications compared to those living in urban

and suburban areas (Carcillo et al., 2015). The challenges associated with lower educational levels are self-evident. After the 2008 economic crisis, the risk of youth unemployment is still greater among under-qualified youths. Moreover, the risk of long-term youth unemployment or of commuting between short-employment spells and a NEET condition is stronger among under-qualified NEETs (Contini, Filandri & Pacellim, 2019) especially in the countryside (Carcillo et al., 2015).

Rural NEETs are also affected by lower household income. They often come from families with lower wages, including in remote areas, such as islands (Papadakis & Kyvelou, 2017). This reflects parents' lower educational status, but also a higher rate of youth dependence on their families, especially in Southern European countries (Carcillo et al., 2015). This trend is evident in Portugal: youths tend to live for longer periods with their parents, but this condition is associated with greater self-reliance (Simões et al., 2017). Thus, in rural areas, the risks associated with lower income and reduced mobility are buffered by family protection (Papadakis & Kyvelou, 2017).

### **Present study**

Our study relies on two goals. The first one is to verify the interplay between self-efficacy, PB and PE, controlling for the effect of SES. Secondly, we intend to verify how these relationships vary across gender and age groups. Our focus on under-qualified rural NEETs is justified considering: (a) the recent importance given to origin in understanding NEETs' situation; (b) the higher proportion of NEETs in rural areas and the impact that this trend has in local communities (EUROSTAT, 2019); and (c) the lack of studies that depict potential factors that shape these youths' professional development, especially among those with lower qualifications.

Our emphasis on the associations between self-efficacy, PB and PE in the case of rural, under-qualified NEETs seems warranted. New data on these connections will help employment agencies serving deprived rural communities to tailor interventions specifically aimed at rural, under-qualified NEETs' professional development. Moreover, our research is intended to support transitioning to the labor market, by matching self-assessed competence with realistic present and future-oriented cognitions in the form PB and PE. More attention given to gender and age differences may help practitioners to tailor their interventions according to youths' needs and characteristics.

Our study took place in The Azores Islands, a Portuguese archipelago composed of nine islands, a two-hour flight from Lisbon, with a population of 247,372 inhabitants. The region is in a process of demographic contraction (-.60%, between 2011 and 2016) after the latest economic crisis (Governo Regional dos Açores, 2018). Moreover, the archipelago population depicts low levels of education. The rate of upper middle school conclusion is the sixth lowest in the country, among 25 regions (92.00%), and below the national average (92.98%) (Conselho Nacional de Educação, 2018). Conversely, the proportion of secondary school attainment has improved in the region (77.70%) and was above the national average (74.00%) in 2017. Nevertheless, the early school leaving rate in The Azores is very high (28.30%), well above the national rate (11.80%) (Conselho Nacional de Educação, 2018).

Unemployment rates in the region for the 2019 third trimester (7.30%) were the highest in regional comparisons across the country and above the national rate (6.10%) (Instituto Nacional de Estatística, 2019). Thus, it is not surprising that the regional NEETs' rate (15.20%) is the highest in the country, and above the national rate (10.00%) (Instituto Nacional de Estatística, 2019).

We tested five hypothesis: (1) higher self-efficacy would lead to lower PB and higher PE; (2) men showing stronger self-efficacy will display weaker PB, while men depicting weaker self-efficacy will show stronger PB, compared to women in identical conditions; (3) younger NEETs (under 24 years old) showing weaker self-efficacy will display stronger PB, while younger NEETs depicting stronger self-efficacy will show weaker PB, when compared to older NEETs (25 years old or above) in identical conditions; (4) women showing stronger self-efficacy will also display stronger PE, while women depicting lower levels of self-efficacy will show weaker PE, when compared to men in identical conditions; (5) younger NEETs denoting stronger self-efficacy will display stronger PE, while younger NEETs demonstrating higher levels of self-efficacy will show weaker PE, when compared to older NEETs in identical conditions.

## **Method**

### **Participants**

Our study included 188 NEETs registered in a local public employment agency. They were aged 18 to 29 years old ( $M = 23.05$ ;  $SD = 1.96$ ); 102 of them (54.30%) were aged between 18 and 24 years old. Most of them were female (58.50%). Regarding school level, 48.90% of the participants had completed upper middle education (9<sup>th</sup> grade), 34.60% had completed secondary education (12<sup>th</sup> grade) and the remaining 16.50% had completed lower middle education (6<sup>th</sup> grade) or less. Their parents also presented lower educational attainment. Most of the participants' fathers, 101(53.70%), had only completed 4<sup>th</sup> grade; 50 (26.60%) had completed the 6<sup>th</sup> grade, 13 (6.90%) the 9<sup>th</sup> grade, 10 (5.30%) has completed high school, and 10 participants (5.30%) did not know their fathers' educational level. In the case of their mothers, 76 (40.40%) had

completed 4<sup>th</sup> grade, 44 (23.00%) attained upper middle education and 43 (22.09%) had completed lower middle education; 3 of the participants (1.60%) did not know their mothers educational level. One hundred participants (53.20%) reported that their father was working, while 89 (47.30%) reported the same for their mothers. At the time the study was carried out, 90 participants (47.90%) lived with their parents, 43 (22.90%) were living with other relatives, 39 (20.70%) lived with their partner and 16 (8.50%) were living alone.

Regarding unemployment status, 101 participants (53.70%) had been unemployed for 6 months or less, 33 (17.60%) had been unemployed between 7 to 12 months, 19 (10.10%) had been in that situation for more than 13 months but less than 24 months, and 35 (18.60%) had been unemployed for more than 25 months. Ninety-seven participants (51.60%) acknowledged that they had had a job contract in the previous 12 months. Furthermore, 45 of them (23.90%) had received job offers for the same period of time. Ninety-two participants (48.90%) stated that their monthly household income was between 500 and 1000 euros, 79 of them (42.00%) reported a monthly household income below 500 euros and 17 (9.00%) reported their monthly household income as being between 1001 and 1500 euros.

## **Measures**

### **Self-efficacy**

Self-efficacy was assessed using the Portuguese version (Pais-Ribeiro, 1995) of the Self-Efficacy Scale (SES) (Sherer et al., 1982). This instrument assesses general self-efficacy and includes 15 items organized in three dimensions: agency and persistence (six items, four of them reversed, example quote: ‘When I make a plan, I am sure I will implement it’), efficacy towards adversity (five items, four of them reversed, ‘I give up

if something seems very difficult to achieve’) and social efficacy (six items, one of them reversed, ‘It is hard for me to make new friends’). The items were rated in a 5-point Likert scale from 1 (Totally disagree) to 5 (Totally agree). Total scores may range from 15 to 75 points. Higher scores indicate greater levels of self-efficacy. The Portuguese version of this scale has presented a good level of internal consistency as a whole measure of self-efficacy ( $\alpha = .84$ ) (Pais-Ribeiro, 1995). In this study, the instrument showed an acceptable internal consistency level as a whole measure of self-efficacy ( $\alpha = .71$ ).

### **Perceived barriers**

PB were examined by using an adapted version of the Barriers to Accomplish Vocational Goals Scale (BAVCS). The BAVCS was originally developed in the Portuguese language (Souza 2011). This instrument consists of 26 items (example quote: ‘I do not have enough money to go to college’). The items are rated in a 5-point Likert scale, ranging from 1 (It does not affect me at all) to 5 (It affects me completely). Total scores may vary between 26 and 130 points. The BAVCS denoted an adequate level of internal consistency ( $\alpha = .82$ ) for the whole scale in prior studies (Simões et al., 2017). In this study, the level of internal consistency was also adequate ( $\alpha = .81$ ).

### **Professional expectations**

We assessed PE using the Work Expectations subscale of the Portuguese version (Almeida, 2019) of the Future Expectations Scale for Adolescents (FESA) (McWirther & McWirther, 2008), based on the version written in Brazilian Portuguese (Dutra-Thomé et al., 2015). The Work Expectations Subscale is comprised of three items (e.g. I will find a job). All items are rated from 1 (I do not believe this at all) and 5 (I certainly

believe this). Total ratings range from 3 to 15 points, with higher ratings meaning greater PE. We found a good internal consistency level for this measure ( $\alpha = .89$ ).

### **Demographics**

We characterized the following demographics: (a) gender (0 = male; 1 = female); age (0 = 18 to 24 years old; 1 = 25 years old or more); educational level (0 = lower middle school (6<sup>th</sup> grade); 1 = upper middle school (9<sup>th</sup> grade); 2 = secondary school); father's professional status (0 = unemployed; 1 = employed); mother's professional status (0 = unemployed; 1 = employed); father's educational level (0 = lower middle school (6<sup>th</sup> grade); 1 = upper middle school (9<sup>th</sup> grade); 2 = secondary school); mother's educational level (0 = lower middle school (6<sup>th</sup> grade); 1 = upper middle school (9<sup>th</sup> grade); 2 = secondary school); household (0 = living with parents; 1 = living with other relatives; 2 = living with partner or alone); period of unemployment (0 = unemployed for 6 months or less; 1 = unemployed between 7 to 12 months; 2 = unemployed for 13 months to 24 months; 3 = unemployed for more than 25 months) job offer in the last 12 months (0 = no; 1 = yes); training offer in the last 12 months (0 = no; 1 = yes) monthly household income (0 = 500 euros or less; 1 = between 501 euros and 1000 euros; 2 = between 1001 euros and 1500 euros).

### **Procedures**

We asked for the collaboration of The Azores regional government, through a local public employment agency to implement the study. The agency indicated a total number of 403 potential participants from two municipalities that complied with the inclusion criteria (being NEET and having attained secondary education, at the most). These youths' relationship with local employment agencies is based on mandatory



presentations at agency meetings, but we followed a non-mandatory approach for research purposes. Two-hundred and fifteen participated in the study, but only 188 delivered a written consent to participate, after being informed that participation was not compulsory. A collective administration of the study's protocol was conducted in small groups (about 10 participants). Data collection involved the explanation of research goals and methods. Sessions for data collection lasted 45 min, including gathering the groups, taking them to the room where data collection took place, giving all the necessary instructions and filling in the survey. Data collection occurred in April 2019.

### **Data Analyses**

Using G Power software, we conclude that a minimum of 153 subjects was required for a regression model with 7 predictors with statistical power set at a cut-off point of .95 (above the standard .80). We performed descriptive and correlational analyses for all participants and by gender and age groups. We tested for outliers and multicollinearity by regressing the outcome variables into factors. Outliers analysis was conducted using Cook's *D*: values below 1 indicated the absence of outliers.

Multicollinearity was assessed using Variation Inflation Factors (VIF); values below 4 indicated non-overlap between factors (Argyrous, 2011). Afterwards, two linear regression models were examined. Model 1 tested the associations between self-efficacy, self-efficacy x gender interaction and self-efficacy x group age interaction with PB, including training offers in the last 12 months and income as covariates.

Model 2 tested the associations between self-efficacy, self-efficacy x gender interaction and self-efficacy x group age interaction with PE. The regression models were run using Z-scores of self-efficacy, PB and PE variables, in order to obtain standardized regression scores and 95% Confidence Intervals (CI). We conducted regression analyses

using the PROCESS v3.3 macro for SPSS 25.00 with 5000 bootstrap samples (model 2) and 95% CI (Hayes, 2018). Models are presented in Figure 1.

[Figure 1]

### Results

After correlational and descriptive analysis, presented in Table 1, we verified the multivariate assumptions to implement linear regression analyses. Cook's  $D$  was below the cut-off criteria for both PE ( $< .06$ ) and PB ( $< .13$ ) on each of the factors entering the models. VIF estimates ranged from 1.00 to 1.04 for both outcome variables, inferior to the cut-off criteria value of 4.

[Tables 1 and 2 and Figure 2]

According to Table 2, Model 1 was significant,  $F(7, 180) = 16.46, p < 0.001$ , explaining 39% of the variance of the participants PB. According to the analysis, greater levels of self-efficacy were associated with higher levels of PB ( $\beta = .60, p < .001, S.E = .11, 95\% C.I.: .38, .81$ ). Furthermore, women presented higher levels of PB compared to men, ( $\beta = .25, p < .05, S.E = .12, 95\% C.I.: .02, .49$ ). Similarly, participants that were offered more training opportunities showed stronger PB ( $\beta = .32, p < .05, S.E = .14, 95\% C.I.: .04, .59$ ). Participants acknowledging higher household income also presented lower levels of PB, ( $\beta = -.36, p < .001, S.E = .10, 95\% C.I.: -.56, -.10$ ). Finally, Model 1 revealed that the interaction between self-efficacy and gender was significantly associated with PB ( $\beta = -.33, p < .01, S.E = .12, 95\% C.I.: -.56, -.10$ ). As we illustrate in Figure 2, this result means that while men depicting weaker self-efficacy levels perceived less barriers, men depicting greater levels of self-efficacy conversely denoted higher levels of PB, compared to women in identical conditions.

Model 2 was also a significant one,  $F(6, 181) = 2.98, p < 0.01$ , explaining 9% of the variance of the participants' PE. In this case, women revealed worse PE ( $\beta = -.33, p$

< .05, S.E = .15, 95% C.I.: -.61, -.05) compared to men. Likewise, older NEETs (those age 25 or above) also denoted worse PE ( $\beta = -.43, p < .05, S.E = .15, 95\% C.I.: -.71, -.15$ ). However, neither self-efficacy, nor its interaction terms with gender and age groups depicted a significant association with PE.

### **Discussion**

Our central aim was to understand the relationships between self-efficacy, PB and PE, controlling for the effect of socioeconomic indicators among rural, under-qualified NEETs. We also intended to verify how these relationships vary across gender and age groups. We came up with six findings. Below we explore these findings, connecting them to our hypotheses, whenever this seems warranted.

First, we found that higher self-efficacy was associated with stronger PB, after accounting for the effects of training offers and income. This result was contrary to our first hypothesis, based on the only similar study involving rural NEETs (Simões et al., 2017). That study included, however, NEETs with both low and high qualifications, possibly justifying a different result. Still, our findings extend prior evidence stemming from reports focused on vulnerable youths and young adults (e.g. Gushue et al., 2006). Higher self-efficacy association with stronger PB among challenged youths and young adults are justified by cognitive processing mechanisms, such as cognitive dissonance or generalized optimism, resulting in an overrating of personal abilities. Generalized optimism is described as a common feature in this developmental stage, including in lower socioeconomic strands (Arnett, 2016). Positive self-assessment may coincide with a strong awareness of barriers, because rural NEETs tend to enter earlier the job market and accept accepting precarious jobs (Papadakis & Kyvelou, 2017). Thus, in a developmental stage when they still hold strong beliefs about their abilities, they also

become aware of professional constraints. Another feasible interpretation is that the measure of self-efficacy included a dimension of efficacy towards adversity (Pais-Ribeiro, 1995). These measuring features possibly overlapped the content of some items of the PB measure, thus inflating the association between variables.

Second, we also found that men showing stronger self-efficacy displayed stronger PB, while men depicting weaker self-efficacy also showed weaker PB, compared to women in identical conditions. This finding was contrary to what we expected. One explanation for this result relies on The Azores labor market structure. Under-qualified men are more involved in the labor market in rural areas. The available jobs in these regions involve physical demandingness, which in turn nurture a sense of self-efficacy among men (Konrad et al., 2000). The more male rural NEETs are integrated in the labor market, the more they are also exposed to unemployment spells, precariousness and physical demandingness. Conversely, women feel more competent regarding jobs in the third sector involving caring and helping others, which are less available in rural areas, especially for under-qualified women (Claster & Blair, 2017). Therefore, rural, under-qualified male NEETs more often may find jobs matching their perceived competences. This fact also makes them more aware of professional adversities that they have to face, when compared to female rural NEETs, who assess their self-efficacy based on domestic and family duties and tasks, limiting their awareness of professional barriers (Sadler et al., 2014).

Third, having more training opportunities in the 12 months prior to the study resulted in stronger PB for these NEETs. This finding reflects previously described problems of educational and employment services in reaching-out, activating and adjusting training offers to NEETs' expectations, especially in rural areas (Shore & Tosun, 2019). Vocational training offers tend to operate using a logic of what is

available, based on a small range of economic activities (e.g. agriculture, tourism) (Carr & Cefalas, 2009), instead of addressing rural NEETs' competences and needs.

Moreover, these proposals are based on formal education approaches. Formal education methodologies do not properly address youths such as these, who are less academic-minded or that have gone through unsuccessful educational trajectories (Simões, 2018; Simões & Rio, 2020). As a consequence, training is flagging additional problems for these youths in entering the job market, instead of representing an opportunity to ease that transition.

Fourth, greater reported income was associated with weaker PB, among the participants. This finding upholds our option for considering concurrent effects of socioeconomic indicators, while disentangling the connections between self-efficacy and present and future professional development indicators. Rural NEETs are more strongly affected by low income (Carcillo et al., 2015) and lower wages, including in remote or more inaccessible areas, such as islands (Papadakis & Kyvelou, 2017).

Higher household income may be a protective factor for upholding brighter professional futures not only for immediate material reasons, but also for social ones. NEETs coming from families with more material resources may also benefit from social resources, such as a greater number of social ties, which can translate into more opportunities to find a job. This is more relevant in the countryside, where informal ties are stronger and more often mobilized to solve personal and social barriers (Simões, 2018).

Fifth, women reported lower PE compared to men. This result expands previous findings. Rural women that have greater educational and PE leave the countryside (Leibert, 2016). The ones remaining not only have lower qualifications, they also find themselves trapped by an employment structure offering male-dominated jobs in agriculture (Leibert, 2016) and narrow traditional roles limiting their work to family

care (Sadler et al., 2014). Thus, it is worrisome, but not surprising, that these women do not have great expectations about their professional future.

Finally, older NEETs (aged 25 years old or more) also depicted lower PE. While expectations tend to decline across the life-span (Morgan & Robinson, 2013), this decline is even more evident among people facing adversities (Wanberg et al., 2016). Older, under-qualified NEETs in rural areas have more been challenged by unemployment or precariousness for longer periods equally to male NEETs. Thus, it is logical that they depict more cynical perspectives about their professional futures.

### **Implications and limitations**

Our study has two major implications. First, rural male and female under-qualified NEETs feel challenged in their present and future professional development in different ways. Due to their low qualifications, but also to a male-dominant work market, men trust their abilities, but are also more exposed to unemployment or precariousness. Conversely, women with lower qualifications have lower chances of being involved in the labor market. Employment services usually respond to these needs offering a “business as usual” approach. Moreover, broadband policies, such as the Youth Guarantee framework are falling short in addressing regional needs (Shore & Tosun, 2019). Instead, person-centered professional development programs, based on an iterative approach (as opposed to the traditional, linear approach of the transition from school to work) are required for these NEETs. These programs can help them adjust their competences self-assessment, while offering support to better match personal skills with local job demand.

Second, this study shows that training offers actually worsens rural, under-qualified NEETs’ professional developmental prospects in this region. Particular

attention must be given to improve the range of training offers in rural areas.

Collaboration between neighboring communities or municipalities, or a more consistent involvement of local NGOs and youth associations as training agencies might tackle this problem. More importantly, training offers must be tailored according to these NEETs' characteristics and needs, meaning that non-formal methodologies or in-place training activities may be particularly welcome (Simões & Rio, 2020).

The scope of our study is novel, but the generalization of its results is limited, because of the implemented cross-sectional design. In spite our results were drawn from a very specific group of participants, in a remote European region, those depicting gender differences confirm the general trends found in educational or sociological literature (Farrugia, 2016; Leibert, 2016; Sadler et al., 2014). Moreover, although our research involved a low number of participants, the statistical power needed for the conducted analysis was achieved. Further and solid generalization from these results across rural European areas requires comparative longitudinal research. Furthermore, employment services were the intermediaries between the researchers and the participants. This may have affected the latter group's motivation, as the former require the mandatory presence of NEETs in some activities. Still, participants' collaboration in this study was non-mandatory to prevent their answers from being influenced by low motivation levels.

### **Conclusion**

Do rural, under-qualified NEETs feel allowed to plan their present and professional future, in the face of their challenging circumstances? This study envisioned exploring this question. Our conclusion is unfortunately, no. More important, some of our findings show that under-qualified NEETs may be seen as

vulnerable youth outliers. Even within this strand of NEETs, men and women have very distinct experiences and perspectives on their professional present and future. Thus, rural, under-qualified NEETs require person-centered approaches from employment services, to support their transition to work.



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