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Self-efficacy in life skills and satisfaction among adolescents in school transitions

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Abstract

Background: Life skills, according to the World Health Organization, can promote youth well-being through educational school programs. Among life skills, decision-making and problem-solving skills can help adolescents consciously choose their career path.

The Italian school system, in fact, requires students, already at a young age (13–14 years old) to make important decisions about their future, like for example choosing the high school that they would like to attend. This study aims to analyze differences in decision-making, self-efficacy, and life satisfaction in a sample of adolescents in secondary school in Italy. It aims to analyze whether there are differences in those dimensions according to students' age, gender, regularity, and future choice intentions.

Design and methods: Here we present a cross-sectional study involving 2104 students, balanced by gender, and attending upper secondary school in Italy. Participants completed Soresi and Nota's questionnaires on life satisfaction and Caprara's questionnaire on problem-solving self-efficacy. The data were processed using MANOVA.

Results: Research results show significant differences in self-efficacy and school satisfaction in relation to the age at which school transition occurred. Specifically, incoming preadolescents (13–14 years old) scored lower than outgoing late adolescents (17–18 years old) in both decision-making self-efficacy and school satisfaction. Girls scored lower than boys in decision-making self-efficacy. Students who expressed the intention to drop out of school scored lowest on both the self-efficacy and perceived support satisfaction scales.

Conclusions: The results highlight the importance of promoting the development of self-efficacy in life skills and school satisfaction to help students in school transitions.

Keywords

Self-efficacy, life skills, problem-solving, decision-making, school satisfaction, adolescence, school transitions

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Introduction

Unemployment Life skills education is one of the goals promoted by the World Health Organization, WHO,[1] to support well-being of young people.

Life skills education refers to specific programs for the prevention of youth problems, to be implemented in schools and in other places dedicated to learning. Life Skills are soft skills necessary to relate to others and to cope with the problems of daily life.

Among the main Life Skills, WHO[1] considers problem-solving, decision-making, effective communication, positive interpersonal relationships, empathy, creativity, critical sense, and managing emotions and stress. In school transitions, students are challenged to use problem-solving skills to choose post-high school paths in line with their plans for future.

In Italian schools,[a] the transition phases occur between the ages of 13 and 14, in early adolescence, and then between the ages of 17 and 18, then in late adolescence.

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Life skills related to problem-solving and decision-making are particularly important at these transitional stages in helping adolescents deal with choices for the future. Problem-solving is a skill that allows one to deal constructively with various problems that can cause psychosocial stress in young people.[2] Decision-making is the ability to make decisions in different situations and contexts of adult life.[2,3]

In the context of adolescent-oriented activities, it is therefore important to promote self-efficacy in young people's decision-making and problem-solving.[2,3] Self-efficacy is a person's perception of the ability to adequately perform predetermined tasks[4]; it is the belief in one's ability to successfully perform designated tasks even in the face of school challenges.[4] Students' self-efficacy beliefs have a substantial impact not only on their academic performance but also on their future careers.[5] Self-efficacy has been shown to predict students' graduation and career choices.[5]

Soresi and Nota[2] highlighted gender differences in self-efficacy associated with decision-making tasks: males exhibit higher efficacy expectations of their decision-making abilities, while girls believe more in their perseverance and thus in completing the tasks they undertake.

Soresi and Nota[2] found that in decision-making self-efficacy males generally tend to score higher than females. Also, they found that older students (18–19 years old) are generally more self-confident than younger students. Girls, although they tend to report better academic performance in adolescence than boys, also tend to show more relational distress.[6–8]

Recent studies on life skills are focusing on self-efficacy in life skills in adolescence.[9]

For example, there is evidence of a correlation between perceived self-efficacy in life skills and students' well-being[10,11] and between resilience in overcoming difficulties and students' self-efficacy,[11,12] in the transition from middle adolescence to late adolescence.

Other studies in this area are focusing on life satisfaction. The subjective sense of satisfaction with one's living conditions is a psychological aspect that figures in numerous studies on quality of life.[13,14]

Student satisfaction can include various contextual dimensions, such as school experiences, relationships with classmates, family relationships, perceived support, living conditions, and decision-making.[2] In adolescence, meaningful family and social relationships are particularly important to adolescents' satisfaction[15]; satisfaction with the school experience, support and backing from significant others, and a sense of belonging to social reference groups are also particularly important.[6,7,16]

There is also a higher level of stress associated with parental limitations and school demands in this age group, especially in the presence of study failures.[17] Students' school satisfaction also seems to be associated with choices: very undecided students in fact experience higher levels of distress.[2] In the Italian context, only a few studies have focused on the relationship between life satisfaction and self-efficacy in life skills in adolescence,[10–12] and only a few studies have specifically analyzed self-efficacy in problem-solving.[9] and decision making, taking into account students' expressed intention about their future choices,[18] and risk of dropping out of school.[19]

Aims of the study: given this background, the present study aims to analyze in a sample of secondary school students in Italy possible differences between first year and fifth-year students in self-efficacy in the dimensions of problem-solving and decision-making. It also aims to investigate any differences in life satisfaction by age and gender.

A further objective is to test whether there are differences in decision-making self-efficacy and in life satisfaction in relation to future choice intentions and regularity in the study.

Method

The proposed study is cross-sectional involving 2140 students, balanced by gender, and attending upper secondary school in Italy. The Data collection took place in the pre-pandemic period in presence, during regular school hours, and in full compliance with privacy regulations and APA guidelines for ethical research in psychology.

An Ethics Committee of the Department of Pedagogy, Psychology and Philosophy at the University of Cagliari approved the research (Prot. 10/07/2018, No. 25). Participants completed the questionnaire individually and the response rate to the questionnaire was 90%.

Participants

The research participants are 2104 students attending upper secondary school in Italy of whom 59% are male ($N=1242$) and 41% are female ($N=862$). 63.7% attend grade one ($N=1340$; mean age = 14.6; SD = 1.1) and 36.3% attend grade five ($N=764$); mean age = 18.8; SD = 1.3).

34.2% attend high schools, 40.3% attend Technical Institutes, and 25.6% attend Institutes for specific professions.

The schools were selected through a convenience sampling, based on the willingness of the schools to join the research project in a region of Southern Italy, Sardinia, particularly at risk for early school leaving. 23.1% of students are repeaters ($N=485$), 30.5% say they have thought about dropping out at least once ($N=641$), and 46.5% are regular in their studies ($N=978$).

53.4% of students are or have been at risk of dropping out of school ($N=1052$) and 46.6% are students in good standing, which say that they have never thought of dropping out of school.

As regards the intentions about the choices for the future, 54% of students intend to work immediately after graduation ($N=1063$), and 46% intend to continue their studies at university ($N=906$).

Instruments

Caprara's Perceived Self-Efficacy in Problem-Solving scale[9] was used to assess self-efficacy in problem-solving,[9] Soresi and Nota's "How much confidence do I have in myself" questionnaire[2] was used to assess self-efficacy in choices, and Soresi and Nota's "My Student Life" questionnaire[2] was used to measure satisfaction with the quality of life.

The Problem-Solving Self-Efficacy Scale[9] consists of 14 items such as "How capable are you of identifying positive alternative solutions in the face of problems"; "How capable are you of generating and discussing solutions before making a decision"; "How capable are you of tackling something new without someone explaining to you how to proceed" ($\alpha=0.87$). The response alternatives range from 1=*not at all capable* to 7=*fully capable*.

The psychometric properties of the scale validated on a sample of 2069 students aged 15–19 from 14 Italian cities are described in Caprara.[9]

The first scale of the Clipper questionnaire, "How much confidence do I have in myself?" by Soresi and Nota,[2] was used to measure self-efficacy in decision-making. This scale is entitled "Confidence in one's ability to make decisions" (seven items including "If I set my mind to something, I will surely be able to accomplish it" and "When I decide to do something, I start working right away" $\alpha=0.82$). Responses are associated with a five-point Likert scale (1=*not at all satisfied*; 5=*extremely satisfied*). The psychometric properties of the instrument are illustrated in Soresi and Nota.[2]

To assess students' satisfaction in different school and life domains, the "My Student Life questionnaire" by Soresi and Nota[2] was used. Specifically, we considered the following scales:

- School experience and type of preparation received (seven items, e.g., "I am really satisfied with the school I am attending"; $\alpha=0.86$);
- Relationships with classmates (three items, e.g., "I can say that I really talk a lot with my classmates"; $\alpha=0.70$);
- General situation (three items, e.g., "I think things are better for me than for my classmates"; $\alpha=0.70$);
- Perceived support (two items, e.g., "In case of need, I know where to find those who can help me"; $\alpha=0.79$).

The respondent can rate themselves on each item using a five-step Likert scale (1=*not at all satisfied*; 5=*very satisfied*).

The psychometric requirements of the instrument are given in Soresi and Nota.[2]

A sociographical form was also used to analyze past and future choice intentions, regularity in the study, and family socioeconomic status.

Data analyses

This is a cross-sectional study, which included several steps.

In the first phase of the work, reliability checks were carried out on the scales using Cronbach's Alpha.

A Factorial Multivariate Analysis of Variance (MANOVA) was carried out to assess if some independent grouping variables (in our case, at first, gender and the age's transition) explain a statistically significant amount of variance in the questionnaire's scales (self-efficacy in decision-making and life satisfaction).

After, the MANOVA was carried out using other independent grouping variables: type of career choice; university versus job; and presence/absence of school drop-out risk.

The significance level for all statistical analyses was $p \leq 0.05$.

Results

Self-efficacy in decision-making: Differences by gender and age

The MANOVA showed significant differences in decision-making self-efficacy associated with gender (Wilks' Lambda=0.983; $F=18.035$; df=2; sig=0.0001; $p<0.05$) and age (Wilks' Lambda=0.98; $F=20.935$; df=2; sig=0.0001; $p<0.05$): girls obtained lower scores ($N=862$; $M=3.38$; SD=0.85) than boys ($N=1242$; $M=3.51$; SD=0.83) and younger students (school class of first: $N=1340$) obtained lower scores than older students (school class of fifth: $N=764$). No interaction effects between the variables emerged. Regarding self-efficacy in problem-solving, only differences emerged by age ($F=41.585$; df=1; sig=0.0001; $p<0.05$) with no interaction effects with gender: younger students scored lower ($M=4.67$; SD=1.02) than older students ($M=4.96$; SD=0.86).

Differences by type of future choice and intention to drop out of studies

The MANOVA highlighted significant differences in the self-efficacy scales by type of future choice (Wilks' Lambda=0.974; $F=25.848$; df=2; sig=0.0001; $p<0.05$), both as regards self-efficacy in problem-solving ($F=51.658$; df=1; sig=0.000) and self-efficacy in decision making ($F=11.173$, df=1; sig=0.001). Students intending to choose university obtained higher scores in self-efficacy in

problem-solving ($N=906$; $M=69.871$; DS = 12.021) than students intending to immediately choose a job ($N=1063$; $M=65.418$; DS = 13.101). The same type of result was also obtained with reference to self-efficacy in decision-making ($M=14.389$ vs $M=13.866$).

The MANOVA revealed significant differences also with regard to the intention to drop out (Wilks' Lambda = 0.997; $F=3.287$; df = 2; sig = 0.038; $p<0.05$): students, who thought of dropping out during secondary school, obtained lower scores in self-efficacy in problem-solving ($N=1052$; $M=66{,}424$; DS = 13,707) than students who never thought of dropping out ($N=917$; $M=68{,}195$; DS = 12,853). The same results were also obtained about self-efficacy in decision-making ($N=1052$, $M=14.246$, DS = 3.299; $N=917$; $M=13.01$; DS = 3.302).

Satisfaction with quality of life: Differences by gender and age

The MANOVA showed significant differences in satisfaction with the quality of life associated with gender (Wilks' Lambda = 0.966; $F=24.902$; df = 3; sig = 0.0001; $p<0.05$) and age (Wilks' Lambda = 0.912; $F=67.84$; df = 3; sig = 0.0001; $p<0.05$).

In reported satisfaction with relationship with peers, girls scored lower ($N=862$; $M=3.23$; SD = 0.82) than boys ($N=1242$; $M=3.46$; SD = 0.88); while in satisfaction with support received, they scored higher ($N=862$; $M=3.866$; SD = 0.84) than boys ($N=1242$; $M=3.72$; SD = 0.76).

Older students also scored significantly higher in school satisfaction ($N=764$; $M=3.63$; SD = 0.86) than students at first years in secondary school ($N=1340$; $M=3.12$; SD = 0.85).

Differences by type of choice and intention to drop out of studies

The MANOVA highlighted significant differences in the scales of satisfaction by type of future choice (Wilks' Lambda = 0.988; $F=4.23$; df = 6; sig = 0.0001; $p<0.05$) and by intention to abandon the studies (Wilks' Lambda = 0.962; $F=27.93$; df = 3; sig = 0.0001; $p<0.05$) without interaction effects between these two variables. Students intending to choose a career path ($N=1063$; $M=3.32$; DS = 1.02) obtained lower scores in academic satisfaction than students intending to enroll in university ($N=906$; $M=3.51$; DS = 1.01). They also scored lower than the others in satisfaction with the support received ($N=1063$; $M=3.66$; DS = 0.78).

Discussion

The research results show, as found in previous studies conducted in Italy,[2,6,7] that in decision-making self-efficacy, girls in the surveyed sample, score lower than their male peers in Italy. However, no differences emerged between boys and girls in problem-solving self-efficacy.

This finding is very interesting for possible interventions that could be implemented in schools to promote self-efficacy in decision-making for girls' futures. Reflecting on these variables and other life skills at school would allow students and female students to understand how they represent their competencies with respect to their educational and professional future, to also grasp the possible limitations they think they have with respect to their future choices.

Regarding satisfaction with perceived support, adolescent boys surveyed tended to score lower than girls. This should give teachers and educators pause about the need to undertake early educational initiatives aimed at preventing psychosocial distress at school.

This proves to be especially important for students at risk of dropping out of school. In fact, research results[6] showed that satisfaction with perceived support is lower in first-year secondary school students, students who are not regular in their studies, and students who are undecided about whether to take the path to college.

Interventions could be designed[7,8] to improve students' well-being in the upper secondary school specifically with students who reported low levels of self-efficacy in life skills and in problem solving.

Strengths and limitations

This study has some limitations that need to be acknowledged. First, the sample identified is on a voluntary and convenient basis, and this may have resulted in a selection bias in questionnaire respondents. Second, the questionnaire is self-report and it could carry with it the limitations related to the subjectivity of compilation.

In future research, it will be appropriate to accompany it with additional objective indicators (e.g. economic and psychophysical conditions) that would allow a more complete representation of students' satisfaction and well-being.

The issue of well-being in school, which is already well-known and studied in the scientific literature, requires further study regarding students' subjective experience in the post-pandemic period.

Although the data collected for this research predates the first lockdown that occurred in Italy by Covid (we had to stop collecting questionnaires precisely because, as of March 2020, the school was closed, and it was not possible for students to fill out the questionnaire), the proposed results can be useful in providing an articulate and comprehensive key to the student's experiences, in the period just before the pandemic.

Conclusions

Our study investigated differences in decision-making, self-efficacy, and life satisfaction in a very large sample size. Our results confirm many of the findings in the literature, highlighting how life skills can help students to

increase and encourage autonomy, problem-solving skills, and stress management skills related to school transitions and school dissatisfaction. In recent discussions about school well-being, educational policymakers have suggested the use of school policies regarding adolescents' life skills implementation.[20] In this regard, the OMS[1] suggests promoting the prevention of students' distress in school and recent research found empirical evidence showing that high levels of self-efficacy and better student perceptions of school climate, were associated with lower student dropout rates.[6]

It is also worth mentioning the need to create psychological and guidance counseling paths, according to the specific transition point students find themselves in, as well as according to age and gender differences, particularly in contexts in which is high the school dropping-out risk[21] and there are other school problems.[22,23]

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Availability of data and materials

The datasets used and/or analyzed during the current study will be available from the corresponding author.

Author contributions

Conceptualization, M.L.P.; methodology, M.L.P. and M.N., investigation, M.L.P. and M.N.; resources and data curation, M.L.P., M.N., and R.F.; writing-original draft preparation M.L.P.; writing-review and editing, R.F. and M.L.P.; project administration, M.L.P., R.F., and M.N. All authors have read and agreed to the published version of the manuscript.

Declaration of conflicting interests

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Ethical approval and consent to participate

The study was conducted according to the guidelines of the Declaration of Helsinki and was authorized by the Ethics Committee of the University of Cagliari. It was conducted in full compliance with the Ethical Principles of Psychologists and Code of Conduct of the American Psychological Association (APA), which has been integrated into the "Associazione Italiana Psicologia" (AIP) code of ethics.

Informed consent statement

Informed consent was obtained from all subjects involved in the study. In accordance with Italian privacy law, the research ensured the anonymity and privacy of all participants.

Significance for public health

Adolescents' psychosocial well-being is a central public health issue, given the quantitative and qualitative consequences it can have on territorial well-being and health facilities, especially today, considering the effects of the Sars-Cov-2 pandemic. The psychological and social effects of research on adolescents' life skills are still being studied, and this research, through the construct of "self-efficacy" and "problem-solving," proposes a new and comprehensive key to a better understanding of psychosocial variables aimed at improving students' life satisfaction in school transitions.

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Note

a. Secondary education in Italy lasts 8 years and is divided into two stages: lower secondary school or middle school (ages 11–14) and upper secondary school or high school (ages 14–19). Italian students can choose which level of secondary school to attend; there are three types of secondary school:
   - Lyceum, which aims to prepare students for university.
   - Technical institute, which is the most common route, and still leads to a university entrance qualification.
   - Institute for specific professions: which includes practical work related to a specific industry or trade.

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